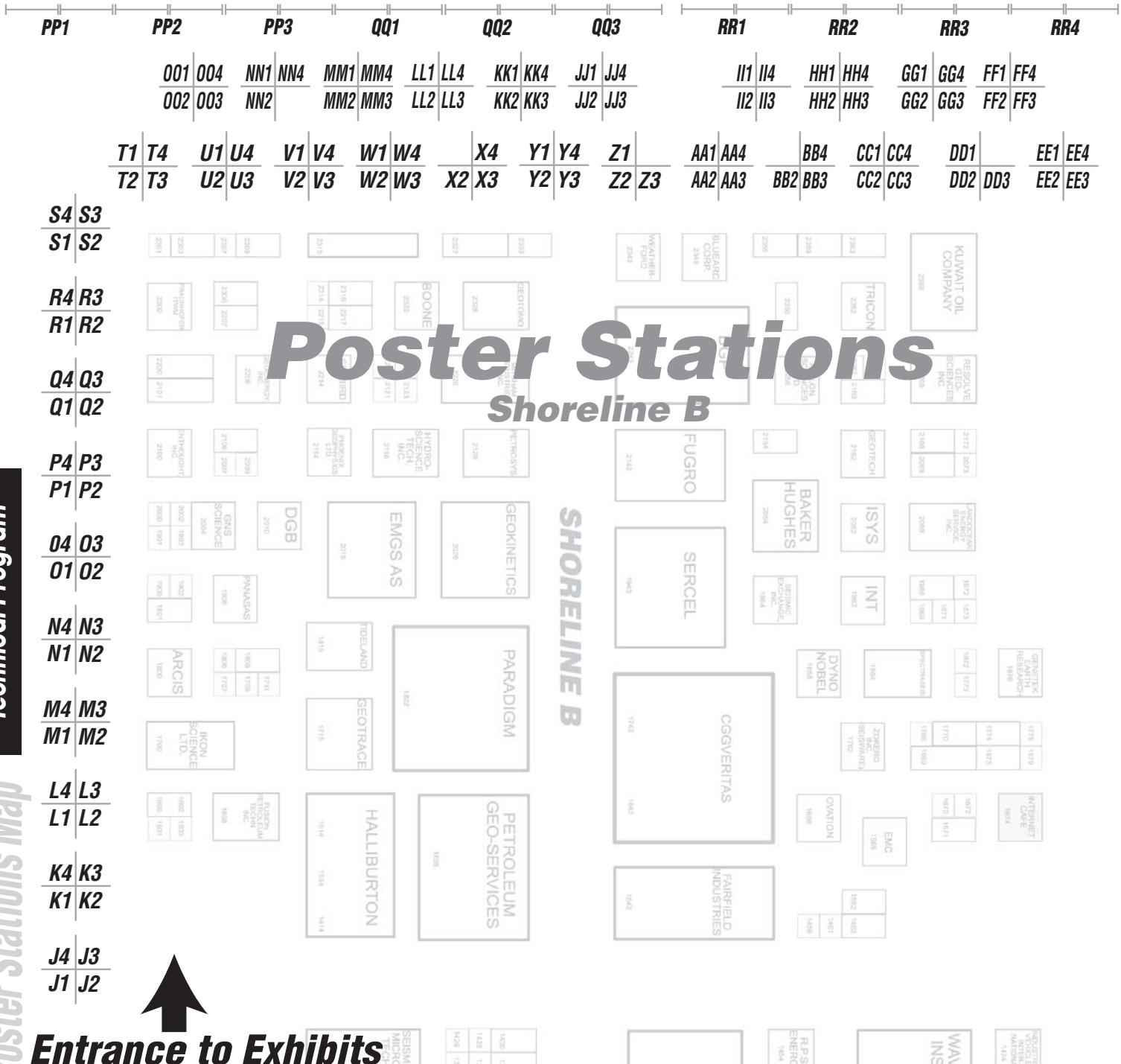
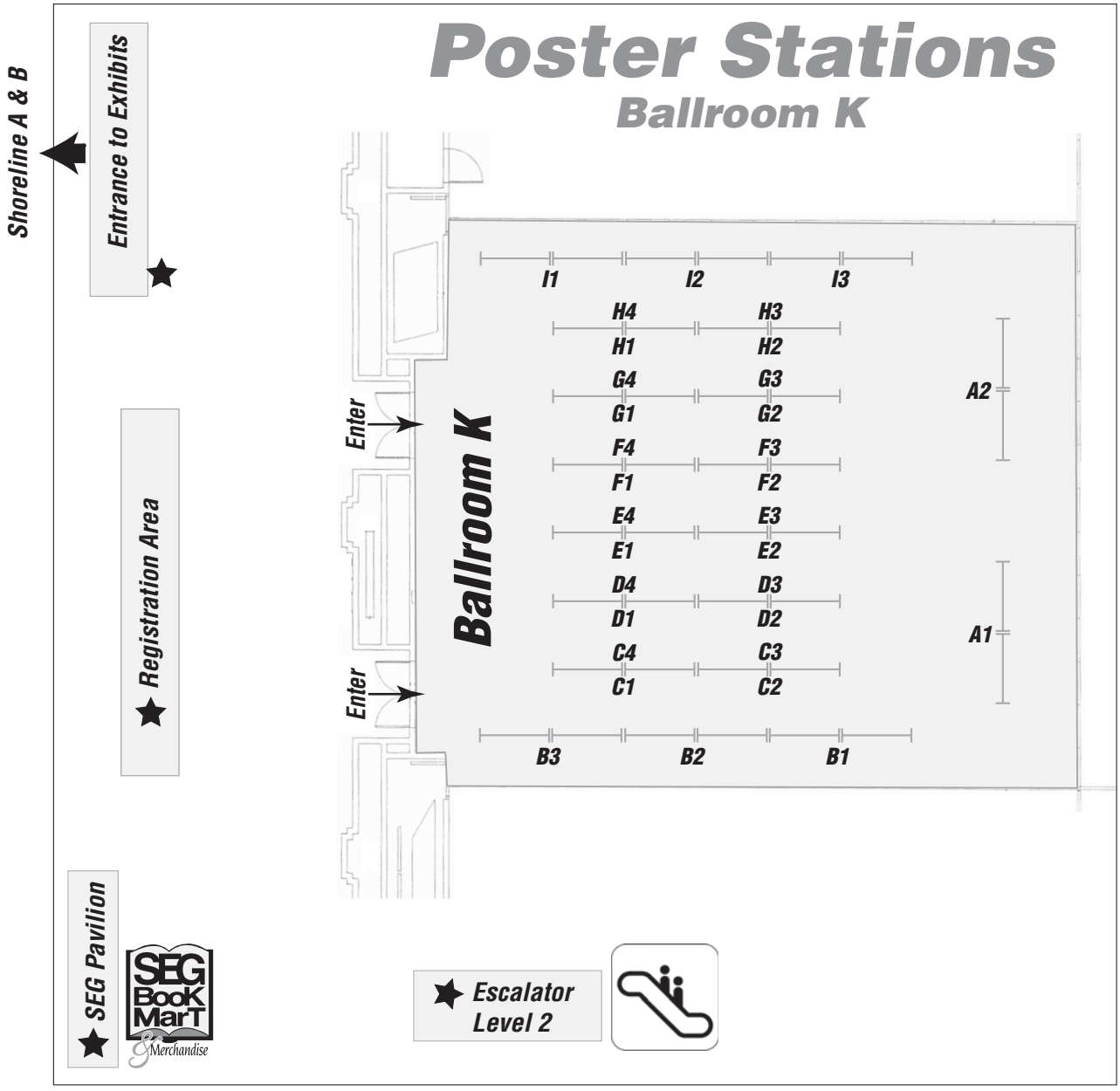
Abbreviation/Topic:

ACQ..... Acquisition and Survey Design
ANI..... Anisotropy
AVO..... AVO
BG..... Borehole Geophysics
CH..... Case Histories
COM..... Combination of Topics
EM..... EM Exploration
GM..... Gravity and Magnetics
INT..... Interpretation
MAZ..... Multiazimuth Technology
MC..... Multicomponent
MIN..... Mining and Geothermal
NSE..... Near Surface and Environmental
PSC..... Passive Seismic and Crosswell
RC..... Reservoir Characterization
RP..... Rock Properties
SI..... Seismic Inversion
SM..... Seismic Modeling
SPMI..... Seismic Processing: Migration
SPMUL.. Seismic Processing: Multiples
SPNA.... Seismic Processing: Noise Attenuation
SS..... Special Session
ST..... Seismic Theory
SVIP..... Seismic Velocity Interpretation and Processing
TL..... Time Lapse
TOM..... Tomography
VSP..... VSP



Technical Program Poster Session Schedule

MONDAY PM	TUESDAY AM	TUESDAY PM	WEDNESDAY AM	WEDNESDAY PM
RP P1: Unconventional Resources and Carbonates	**CH P1:** Case Studes Around the World	**RP P2:** New Applications	**TOM P1:** Velocity Model Building	**GM P1:** Processing and Interpretation
EM P1: General	**SM P1:** General Seismic Modeling	**SPMI P2:** Applications	**INT P2:** Integrated Studies	**SVIP P1:** Prestack Modeling and Inversion
SPMI P1: Techniques	**NSE P1:** General	**SI P1:** General	**RC P1:** Seismic Attribute Applications	**COM P1:** Medley
ACQ P1: Land and Marine	**INT P1:** Attributes, Workflows, and Visualization	**SPNA P1:** Noise Attenuation and Wavelets	**SPMUL P1:** Case Histories	**ST P1:** Interferometry, Imaging, and Attributes
	PSC P1: Methods in Passive Seismic	**ACQ P2:** Comparisons and Analysis		



Poster Sessions ➤Monday, 10 November

ACQ P1 Land and Marine

Session Chairmen: Eivind Fromyr and Joel G. Starr
Room: Exhibit Hall ..... *(Monday, 10 November)*

1:30 PM .... The footprint simulation and analysis for offshore seismic tow-cable acquisition—Jingye Li*, Jianjun Gao, Xiaohong Chen, and Jian Ma, China U of Petroleum (ACQ P1.1) [3]*
➤*Poster Station: JJ1*

1:50 PM .... Over-under deghosting: 1D, 2D, or 3D algorithms in the F, FK, or FXY domains—Bruno Gratacos, CGGVeritas (ACQ P1.2) [3]*
➤*Poster Station: JJ2*

2:10 PM ..... Effects of seismic blasting in thickly populated areas – An experimental study in Upper Assam, India—R. Dasgupta*, P. K. Paul, and A. Kumar, Oil India; P. Pal Roy, C. Sowmliana, and R.P. Singh, Central Mining Research Inst. (ACQ P1.8) [2]*
➤*Poster Station: JJ3*

2:30 PM .... "Intelligent infill" for cost effective 3D seismic marine acquisitions—Philippe Capelle* and Paul Matthews, Total (ACQ P1.4) [4]*
➤*Poster Station: JJ4*

2:50 PM .... Seismic acquisition techniques in complex mountainous areas: Case study in Kuqa Foreland Basin, western China—Y. Liu*, J. Yang, X. Liang, Y. Huang, and Y. Zhou, CNPC (ACQ P1.5) [3]*
➤*Poster Station: II1*

3:10 PM .... The estimation of noise suppression of 3D recording geometry and its application—J. Xia*, D. Tang, Y. Huang, and X. Luo, BGP (ACQ P1.6) [1]*
➤*Poster Station: II2*

3:30 PM .... Low frequencies using conventional sensors—Joe Dellinger, BP (ACQ P1.7) [3]*
➤*Poster Station: II3*

EM P1 General *(Monday, 10 November)*

Session Chairmen: James J. Carazzone and Tsili Wang
Room: Mandalay Bay K ..... *(Monday, 10 November)*

1:30 PM .... Born approximation inversion for the marine CSEM data set—Z. Wang*, Z. He, W. Sun, Y. Wang, and W. Luo, BGP (EM P1.1) [3]*
➤*Poster Station: H1*

1:50 PM .... Lower and upper bounding constraints of model parameters in inversion of geophysical data—Hee Joon Kim*, Pukyong National U; Young Hee Kim, California Inst. of Technology (EM P1.2) [3]*
➤*Poster Station: H2*

2:10 PM .... Possible source effects observed in a magnetotelluric monitoring site in southern Italy—M. Balasco*, V. Lapenna, and G. Romano, Inst. of Methodologies for Environmental Analysis (IMAA); A. Siniscalchi, U of Bari; L. Telesca, IMAA (EM P1.3) [4]*
➤*Poster Station: H3*

2:50 PM .... De-risking exploration prospects using controlled-source electromagnetic surveys—A. K. Tyagi and A. Muralikrishna, Reliance Industries; L. Lorenz, EMGS; H. E. F. Amundsen, EPX; R. Bastia, Reliance (EM P1.5) [3]*
➤*Poster Station: I1*

3:10 PM .... Modeling in-line data for seabed logging with 2.5D and 3D integral equations—Ali Moradi Tehrani* and Evert Slob, Delft U (EM P1.6) [6]*
➤*Poster Station: I3*

3:30 PM .... A sensitivity analysis of the sea bed logging technique with respect to reservoir heterogeneities—Zhong Wang* and Leiv-J Gelius, U of Oslo; Fan-Nian Kong, Norwegian Geotechnical Inst (EM P1.7) [3]*
➤*Poster Station: I4*

RP P1 Unconventional Resources and Carbonates

Session Chairmen: Daniel A. Ebrom and Mario A. Gutierrez
Room: Mandalay Bay K ..... *(Monday, 10 November)*

1:30 PM .... Temperature-dependent fluid substitution analysis of geothermal rocks at in situ reservoir conditions—M. Jaya* and S. Shapiro, Freie U Berlin; D. Bruhn and E. Huenges, GFZ Potsdam; O. Flovenz, Iceland GeoSurvey (RP P1.1) [4]*
➤*Poster Station: B1*

2:10 PM .... Seismic attenuation and well log analysis in a heavy-oil field—Zimin Zhang* and Robert R. Stewart, U of Calgary (RP P1.3) [3]*
➤*Poster Station: B3*

2:30 PM .... Characterizing the elastic properties and seismic signature of a heavy oil sand reservoir: Manitou Lake, Saskatchewan—Maria F. Quijada* and Robert R. Stewart, U of Calgary (RP P1.4) [1]*
➤*Poster Station: C1*

2:50 PM ..... The effect of fabric-controlled layering on compressional and shear wave propagation in carbonate rock—W. Li*, C. Petrovitch, and L. J. Pyrak-Nolte, Purdue U; E. Liu and S. Xu, ExxonMobil Upstream Research (RP P1.5) [2]*
➤*Poster Station: C2*

3:10 PM .... A rock physics model for hydrate bearing sediments of the near surface—Zijian Zhang*, AOA Geophysics and U of Houston (RP P1.6) [3]*
➤*Poster Station: C3*

3:30 PM .... Elastic and flow properties of carbonate core derived from 3D X ray-CT images—M. A. Knackstedt, C. Arns, M. Madadi, A. P. Sheppard, S. Latham, and R. Sok, Australian Nat'l U; G. Bächle* and G. Eberli, U of Miami (RP P1.7) [3]*
➤*Poster Station: C4*

Poster Sessions ➤Monday, 10 November (continued)

SPMI P1 Techniques

Session Chairmen: Jeffrey C. Shragge and Simon A. Shaw
Room: Exhibit Hall (Monday, 10 November)

1:30 PM .... A multistep approach for efficient reverse-time migration—H. Guan*, Z. Li, B. Wang, and Y. Kim, TGS (SPMI P1.1) [3]*
➤*Poster Station: V2*

1:50 PM .... Elastic-wave reverse-time migration with a wavefield-separation imaging condition—Huseyin Denli and Lianjie Huang, Los Alamos Nat'l Lab (SPMI P1.2) [3]*
➤*Poster Station: V3*

2:10 PM .... Wave-equation extended images for semblance and depth focusing velocity analysis—Tongning Yang* and Paul Sava, Colorado School of Mines (SPMI P1.3) [3]*
➤*Poster Station: V4*

2:30 PM .... Methods for expediting the computation of angle gathers during shot record migration—Steve Kelly* and Junru Jiao, PGS (SPMI P1.4) [3]*
➤*Poster Station: W1*

2:50 PM .... Imaging diffraction points using the local image matrix in prestack migration—Xiaosan Zhu*, U of California and Peking U; Ru-Shan Wu, U of California (SPMI P1.5) [3]*
➤*Poster Station: W2*

3:10 PM .... Least squares datuming with the wave equation—Yanwei Xue* and Gerard T. Schuster, U of Utah (SPMI P1.6) [3]*
➤*Poster Station: W3*

3:30 PM ..... Obliquity correction for reverse-time migration—F. A. Silva Neto, J. C. Costa*, M. Rian, U Federal do Pará; J. Schleicher and A. Novais, U Estadual de Campinas (SPMI P1.7) [3]*
➤*Poster Station: W4*

3:50 PM .... Focused Gaussian beams for seismic imaging—Robert L. Nowack; Purdue U (SPMI P1.8) [3]*
➤*Poster Station: X2*

NOTES:

Poster Sessions ➤Tuesday, 11 November

CH P1 Case Studies Around the World

Session Chairmen: Thomas K. Fulton and Chuck Keller
Room: Mandalay Bay K (Tuesday, 11 November)

9:20 AM ... Rock physics modeling applied to quantitative evaluation of shallow gas potential of Plio-Peistocene foreland basin, southwestern Taiwan—Shi-Chie Fuh*, Yu-Liang Yang, Shov-Chian Liang, Tzy-Yi Chang, and Jen-Yang Lin, Chinese Petroleum Corp (CH P1.1) [3]*
➤*Poster Station: D1*

9:40 AM ... Building an rms velocity model for seismic data recorded on nonflat surface topography: Experience with a mountainous area in southern China—Yongsheng Ma, Tonglou Guo, and Chuanwen Sun*, China Petroleum & Chemical Corp and Reliable GeoInfo (CH P1.2) [3]*
➤*Poster Station: D2*

10 AM ..... Well log and synthetic seismogram analysis of an oilfield in Assam, India: A 3-C seismic development feasibility study—Robert R. Stewart and Maria F. Quijada*, U of Calgary; K. L. Mandal and Romen Borgohain, Oil India (CH P1.3) [1]*
➤*Poster Station: D3*

10:20 AM .. Case studies on oil and water wells separation and gas sand prediction in a coal formation using wavelet selection and volume-based seismic waveform decomposition—Ping An, GeoCyber Solutions (CH P1.4) [4]*
➤*Poster Station: D4*

10:40 AM . Noise attenuation aspects of single-sensor seismic data, case study from Kuwait—Adel El-Emam*, Kuwait Oil; Ayman Shabrawi and Wael Gamal Eldin, WesternGeco (CH P1.5) [5]*
➤*Poster Station: E1*

11 AM ..... 2D traveltime inversion for gas hydrates in the Kerala-Konkan Basin, western offshore India—Sanjeev Rajput*, Schlumberger Reservoir Seismic Services; N. K. Thakur and P. Prasada Rao, Nat'l Geophysical Research Inst (CH P1.6) [3]*
➤*Poster Station: E2*

11:20 AM.. Steam effect on a merged 3D seismic data set—Sailendra N. Mahapatra* (now at Petrobras America) and Matthias G. Imhof, Virginia Tech (CH P1.7) [3]*
➤*Poster Station: E3*

11:40 AM… Time domain 2D VSP and 3D VSP processing—Brian Fuller*, Marc Sterling, and Richard Van Dok HiPoint Reservoir Imaging, LLC (CH P1.8) [3]*
➤*Poster Station: E4*

INT P1 Attributes, Workflows, and Visualization

Session Chairmen: Ezequiel F. Gonzalez and Dengliang Gao
Room: Exhibit Hall (Tuesday, 11 November)

9:20 AM ... 2D seismic sections in 3D display: Color and shape—Vladimir Bashkardin, U of Texas-Austin (INT P1.1) [2]*
➤*Poster Station: X3*

9:40 AM ... Visualizing spectral decomposition using the view locked color image grand tour—Bradley C. Wallet, U of Oklahoma (INT P1.2) [2]*
➤*Poster Station: X4*

Poster Sessions ➤Tuesday, 11 November (continued)

10 AM ..... Waveform presentation of seismic traces by a parallel algorithm—Kaihong Wei* and Jim Ching-Rong Lin, Landmark Graphics (INT P1.3) [3]*
➤*Poster Station: Y1*

10:20 AM . A methodology for structural analysis of seismic folds—J. L. Fernández Martínez* and Richard J. Lisle, Cardiff U (INT P1.4) [3]*
➤*Poster Station: Y2*

10:40 AM... Attribute illumination of basement faults, Cuu Long Basin, Vietnam—Ha T. Mai* and Kurt J. Marfurt, U of Oklahoma (INT P1.5) [4]*
➤*Poster Station: Y3*

11 AM..... 3D seismic visualization of shelf-margin to slope channels using curvature attributes—Felipe A. Lozano, U of Houston; Kurt J. Marfurt, U of Oklahoma (INT P1.6) [3]*
➤*Poster Station: Y4*

11:20 AM.. Volumetric application of skewed spectra—Kui Zhang*, Kurt J. Marfurt, and Yanxia Guo, U of Oklahoma (INT P1.7) [3]*
➤*Poster Station: Z1*

11:40 AM.. Coherence cube based on curvelet transform—Guangzhi Zhang*, Jingjing Zheng, and Xingyao Yin, China U of Petroleum; Yong Pu, Petroleum Exploration Co-Southern China (INT P1.8) [3]*
➤*Poster Station: Z2*

NSE P1 General

Session Chairmen: Julian Ivanov and Ralph Bridle
Room: Exhibit Hall ..... *(Tuesday, 11 November)*

9:20 AM ... Mapping salt tracer penetration into the hyporheic zone with GPR attenuation—Emily Hinz* and John Bradford, Boise State U (NSE P1.1) [3]*
➤*Poster Station: R1*

9:40 AM ... Permittivity inversion of borehole radar data measured in the vadose zone—Hannuree Jang and Hee Joon Kim*, Pukyong National U; Seiichiro Kuroda, Nat'l Inst for Rural Engineering (NSE P1.2) [3]*
➤*Poster Station: R2*

10 AM..... Dip moveout processing of ground-penetrating radar data from the Norman Landfill, Norman, OK—Nate Johnson* and Roger Young, U of Oklahoma (NSE P1.3) [2]*
➤*Poster Station: R3*

10:20 AM . Mapping tailings around mine sites with reverse polarity airborne transient EM data—Richard S. Smith*, Fugro Airborne Surveys; Li Zhen Cheng, U du Québec; Michel Chouteau, École Polytechnique de Montréal (NSE P1.4) [1]*
➤*Poster Station: R4*

10:40 AM . HEM calibration and bird-swing correction: An insular example—James Macnae, Yusen Ley-Cooper, and Aaron Davis, Royal Melbourne Inst of Technology (NSE P1.5) [1]*
➤*Poster Station: S1*

11 AM..... Mapping mineralization in the Monitor Pass mining district—Jeffrey D. Shoffner* and Wendy M. Calvin, U of Nevada (NSE P1.6) [2]*
➤*Poster Station: S2*

11:20 AM.. Geophysics and climate research: High resolution 2D seismic surveys recorded at Lake Tana, Ethiopia – the source of the Blue Nile—Dave Phillips*, Schlumberger Information Solutions, C. Richard Bates, U of St. Andrews (NSE P1.7) [2]*
➤*Poster Station: S3*

11:40 AM ...Seismic tomography for near surface: Uncertainty analysis—Carlos Becerra*, U Industrial de Santander; William Agudelo and Saul Guevara, Ecopetrol (NSE P1.8) [4]*
➤*Poster Station: S4*

PSC P1 Methods in Passive Seismic

Session Chairmen: Nancy J. House and William R. Keller
Room: Exhibit Hall ..... *(Tuesday, 11 November)*

9:20 AM ... Analysis of spurious events in seismic interferometry—Jan Thorbecke* and Kees Wapenaar, Delft U (PSC P1.1) [3]*
➤*Poster Station: HH1*

9:40 AM ... Estimation of hydrofracture source location with time reversal mirrors—W. Cao*, U of Utah; T. W. Fei, Y. Luo, M. N. Alfaraj, Saudi Aramco; G. T. Schuster and C. Boonyasiriwat, U of Utah (PSC P1.2) [3]*
➤*Poster Station: HH2*

10 AM ..... Microseismic characterization of pore pressure change in laboratory experiments—S. B. Turuntaev*, E. V. Zenchenko, A. V. Novikov, Inst for Dynamics of Geospheres Russian Academy of Sciences (PSC P1.3) [3]*
➤*Poster Station: HH3*

10:20 AM . Noise suppression for detection and location of microseismic events using a matched filter—L. Eisner*, D. Abbott, W. B. Barker, J. Lakings, and M. P. Thornton, Microseismic (PSC P1.4) [3]*
➤*Poster Station: HH4*

10:40 AM . Testing the ability of surface arrays to locate microseismicity—Kit Chambers*, U of Bristol; Sverre Brandsberg-Dahl, PGS (formerly at BP); J-Michael Kendall, U of Bristol; Jose Rueda, BP (PSC P1.5) [2]*
➤*Poster Station: GG1*

11 AM..... Full 3D relocation of microseisms for reservoir monitoring—Aldo Vesnaver*, Lara Lovisa, and Gualtiero Böhm, OGS Italy (PSC P1.6) [2]*
➤*Poster Station: GG2*

11:20 AM.. Microseismic event azimuth estimation: Establishing a relationship between hodogram linearity and uncertainty in event azimuth—Julian Drew* and Robert White, U of Cambridge; James Wolfe, BP North America Gas (PSC P1.7) [3]*
➤*Poster Station: GG3*

11:40 AM.. **Identification of microseismic multiplets in the frequency domain and interpretation of reservoir structure at Basel, Switzerland**—H. Asanuma*, Y. Kumano, H. Moriya, and H. Niitsuma, Tohoku U; U. Schanz and M. Häring, Geothermal Explorers (PSC P1.8) [2]*
➤*Poster Station: GG4*

SM P1 General Seismic Modeling

Session Chairmen: Nizar Chemingui and David F. Aldridge
Room: Exhibit Hall (Tuesday, 11 November)

9:20 AM..... **2D acoustic-elastic coupled modeling using the cell-based finite-difference method**—S. C. Lim, H. Y. Lee, D. J. Min, B. D. Kwon, Seoul Nat'l U (SM P1.1) [4]*
➤*Poster Station: L1*

9:40 AM ... **Finite-difference modeling of 3D seismic wave propagation in high-contrast media**—Leiph A. Preston*, David F. Aldridge, and Neill P. Symons, Sandia Nat'l Lab (SM P1.2) [4]*
➤*Poster Station: L2*

10 AM ..... **Frequency-domain full-waveform modeling using a hybrid direct-iterative solver based on a parallel domain decomposition method: A tool for 3D full-waveform inversion?**—F. Sourbier*, Geosciences Azur CNRS; A. Haidar, Cerfacs; L. Giraud, Enseeiht-Irit; S. Operto, Geosciences Azur CNRS; J. Virieux, U Joseph Fourier-Grenoble (SM P1.3) [4]*
➤*Poster Station: L3*

10:20 AM . **Seismic attenuation modeling of fluid-filled porous media**—Xiaojun Xiong*, Zhenhua He, and Deji Huang, Chengdu U (SM P1.4) [3]*
➤*Poster Station: L4*

10:40 AM . **Kinematic characteristics of the factorized model**—A. Stovas, Norwegian U of Science and Technology (SM P1.5) [5]*
➤*Poster Station: M1*

11 AM..... **3D anisotropic ray tracing by raypath optimization**—L. Casasanta*, G. Drufuca, Politecnico di Milano; C. Andreoletti and J. Panizzardi, Eni E&P (SM P1.6) [3]*
➤*Poster Station: M2*

11:20 AM.. **Assembling a Nevada 3D velocity model: Earthquake-wave propagation in the Basin & Range, and seismic shaking predictions for Las Vegas**—John N. Louie, U of Nevada (SM P1.7) [3]*
➤*Poster Station: M3*

11:40 AM .. **3D sonic log in multiscale viscoelastic media: Finite-difference simulation**—Dimitry V. Pissarenko, Schlumberger Moscow Research; Galina V. Reshetova, Inst of Computational Mathematics and Mathematical Geophysics SB RAS; Vladimir A. Tcheverda*, Inst of Petroleum Geology and Geophysics (SM P1.8) [2]*
➤*Poster Station: M4*

ACQ P2 Comparisons and Analysis

Session Chairmen: Paulo Johann and Nestor Sanabria
Room: Exhibit Hall (Tuesday, 11 November)

1:30 PM..... **A new technology for optimizing survey design on a real-surface model**—L. Shi*, X. Jiang, Y. Gao, J. Ding, and L. Xu, BGP (ACQ P2.1) [5]*
➤*Poster Station: OO4*

1:50 PM..... **Target oriented illumination analysis using wave equation**—G. C. Alves*, A. Bulcao, D. M. Soares Filho, C. E. Theodoro, L. A. Santos, M. A. G. Guimaraes, Petrobras (ACQ P2.2) [3]*
➤*Poster Station: OO3*

2:10 PM ..... **Improving sensor technology brings a new level of reservoir understanding**—Masahiro Kamata, Les Nutt, and William Underhill*, Schlumberger (ACQ P2.3) [3]*
➤*Poster Station: OO2*

2:30 PM .... **Comparison of single sensor 3C MEMS and conventional geophone arrays for deep target exploration**—Christian Stotter*, Erika Angerer, and Erwin Herndler, OMV E&P (ACQ P2.4) [3]*
➤*Poster Station: OO1*

2:50 PM .... **Field data comparison: 3-C, 2D data acquisition with geophones and accelerometers**—G. Hauer*, Aram Systems; M. Hons, R. Stewart, D. Lawton, and M. Bertram, U of Calgary (ACQ P2.5) [4]*
➤*Poster Station: PP1*

3:10 PM .... **Reconstructing head waves with virtual source method**—M. Tatanova*, St. Petersburg State U; A. Bakulin and K. Mehta, Shell Int'l E&P; V. Korneev, Lawrence Berkeley Nat'l Lab; B. Kashtan, St. Petersburg State U (ACQ P2.6) [3]*
➤*Poster Station: PP2*

3:30 PM .... **Microphone experiments and applications in exploration seismology**—Alejandro D. Alcudia* and Robert R. Stewart, U of Calgary (ACQ P2.7) [3]*
➤*Poster Station: PP3*

3:50 PM ..... **Illumination of the subsurface towards identifying shadow zones and optimizing target images**—Riaz Alai*, Petrotarget; Jan Thorbecke, Delft U (ACQ P2.8) [3]*
➤*Poster Station: QQ1*

RP P2 New Applications

Session Chairmen: Per Avseth and Stephan Gelinsky
Room: Mandalay Bay K (Tuesday, 11 November)

1:30 PM .... **Rock physics modeling of soft sedimentary and hard crystalline rocks**—Toru Takahashi* and Soichi Tanaka, Fukada Geological Inst (RP P2.1) [4]*
➤*Poster Station: F1*

1:50 PM .... **Acoustic properties of coal from lab measurement**—Qiuliang Yao* and De-hua Han, U of Houston (RP P2.2) [3]*
➤*Poster Station: F2*

Poster Sessions ➤Tuesday, 11 November (continued)

2:10 PM .... Analyzing thresholds for 3D reconstruction of rock from CT-scan images—Richa Richa*, Tapan Mukerji, and Gary Mavko, Stanford U (RP P2.3) [4]*
➤*Poster Station: F3*

2:30 PM .... Granular dynamics simulation for estimating elastic properties of loose unconsolidated frictional packs—Ratnanabha Sain*, Tapan Mukerji, and Gary Mavko, Stanford U (RP P2.4) [3]*
➤*Poster Station: F4*

2:50 PM .... Contribution to the understanding of field-specific seismic attenuation—Didier Rappin, Total E&P; Christophe Barnes, U de Cergy-Pontoise (RP P2.5) [3]*
➤*Poster Station: G1*

3:10 PM .... Elastic anisotropy of clay—K. Bandyopadhyay*, T. Vanorio, and G. Mavko, Stanford U; H.-R. Wenk and M. Voltolini, U of California (RP P2.6) [2]*
➤*Poster Station: G2*

3:30 PM..... Direct laboratory observation of velocity-saturation relation transition during rocks saturation—M. Lebedev, B. Gurevich*, and J. Toms, Curtin U; B. Clennel and M. Pervukhina, CSIRO; T. Mueller, U of Karlsruhe (RP P2.7) [3]*
➤*Poster Station: G3*

3:50 PM .... Nonlinear seismic response of rock saturated with multiple fluids—Mark Chapman, British Geological Survey (RP P2.8) [3]*
➤*Poster Station: G4*

SI P1 General

Session Chairmen: Cengiz Esmersoy and Long Jin
Room: Exhibit Hall ..... *(Tuesday, 11 November)*

1:30 PM .... Lithological constraints from seismic waveforms: Application to the opal-A to opal-CT transition—Mohammad Maysami* and Felix J. Herrmann, U of British Columbia (SI P1.1) [3]*
➤*Poster Station: T1*

1:50 PM .... 2D frequency-domain elastic full-waveform inversion using a P0 finite volume forward problem—Romain Brossier*, Géosciences Azur, U Nice; Jean Virieux, U Joseph Fourier; Stéphane Operto, Géosciences Azur, U Nice (SI P1.2) [3]*
➤*Poster Station: T2*

2:10 PM .... Stack impedance—Hongbing Li*, XingFu Cui, and WenFeng Huang, PetroChina (SI P1.3) [5]*
➤*Poster Station: T3*

2:30 PM .... Global multiwell wavelet estimation—Alex Malkin* and Anat Canning, Paradigm (SI P1.4) [4]*
➤*Poster Station: T4*

2:50 PM .... Frequency-domain elastic waveform inversion with irregular surface topography—Ugeun Jang, Dong-Joo Min, Yunseok Choi, and Changsoo Shin, Seoul National U (SI P1.5) [3]*
➤*Poster Station: U1*

3:10 PM .... Preconditioning for linearized inversion of attenuation and velocity perturbations—Bobby Hak*, Delft U; Wim A. Mulder, Shell Int'l E&P (SI P1.6) [3]*
➤*Poster Station: U2*

3:30 PM .... A novel prestack AVO inversion and its application—Xingyao Yin*, Peijie Yang, and Guangzhi Zhang, China U of Petroleum (SI P1.7) [3]*
➤*Poster Station: U3*

3:50 PM ..... Nonlinear shaping regularization in geophysical inverse problems—Sergey Fomel, U of Texas (SI P1.8) [3]*
➤*Poster Station: U4*

4:10 PM ... Velocity analysis of surface seismic data with VSP data as constraints—Yonghwan Joo, Soon Jee Seol, and Joongmoo Byun, Hanyang U (SI P1.9) [3]*
➤*Poster Station: V1*

SPMI P2 Applications

Session Chairmen: Francois Audebert and Guojian Shan
Room: Exhibit Hall ..... *(Tuesday, 11 November)*

1:30 PM .... Spatial sampling considerations for wide-azimuth streamer data—Adam Cherrett, Total E&P (SPMI P2.1) [3]*
➤*Poster Station: N1*

1:50 PM .... Improving bandwidth in the Claerbout-Lumley-Bevc antialiasing method—Stewart A. Levin, Halliburton (SPMI P2.2) [6]*
➤*Poster Station: N2*

2:10 PM ... Imaging of steep flanks by focal sources—Jan Thorbecke, Delft U (SPMI P2.3) [4]*
➤*Poster Station: N3*

2:30 PM .... A fast and accurate migration from topography via coarse step downward wavefield extrapolation—Mark Ng, Divestco (SPMI P2.4) [4]*
➤*Poster Station: N4*

2:50 PM .... Computation of kinematic attributes for prestack time migration—G. Lambare*, P. Herrmann, J.-P. Toure, E. Suaudeau, and D. Lecerf, CGGVeritas (SPMI P2.5) [5]*
➤*Poster Station: O1*

3:10 PM .... A phase shift plus interpolation algorithm for prestack time migration—Jianhua Pan* and Dan Negut, Arcis (SPMI P2.6) [3]*
➤*Poster Station: O2*

3:30 PM .... Amplitude and bandwidth recovery beneath gas zones using Kirchhoff prestack depth Q-migration—Peter Traynin*, Jonathan Liu, and J. M. Reilly, ExxonMobil Upstream Research (SPMI P2.7) [3]*
➤*Poster Station: O3*

3:50 PM ... Choosing a good set of beams for rapid prestack depth migration—Dave Nichols* and Andre Tran, WesternGeco (SPMI P2.8) [3]*
➤*Poster Station: O4*

Poster Sessions ➤*Tuesday, 11 November (continued)*

SPNA P1 Noise Attenuation and Wavelets

Session Chairmen: Raymond L. Abma and Nurul Kabir
Room: Exhibit Hall (Tuesday, 11 November)

1:30 PM .... Adaptive F-X interpolation of curved seismic events via exponentially weighted recursive least squares (EWRLS)—Mostafa Naghizadeh* and Mauricio D. Sacchi, U of Alberta (SPNA P1.1) [3]*
➤*Poster Station: Z3*

1:50 PM .... Prestack coherent noise suppression in the 2D wavelet domain—Zhan Yi*, Zhao Bo, Liu Jianhong, and Wang Chengxiang, BGP (SPNA P1.2) [5]*
➤*Poster Station: AA1*

2:10 PM .... Comparison of some algorithms for acquisition footprint suppression and their effect on attribute analysis—M. Cvetkovic*, N. Pralica, and S. Falconer, U of Houston; K. J. Marfurt, U of Oklahoma; S. Chávez-Pérez, Inst Mexicano del Petróleo (SPNA P1.3) [4]*
➤*Poster Station: AA2*

2:30 PM .... Structurally consistent f-x filtering—Y. Traonmilin* and P. Herrmann, CGGVeritas (SPNA P1.4) [3]*
➤*Poster Station: AA3*

2:50 PM .... Swell-noise attenuation using an iterative FX prediction filtering approach—Michel Schonewille*, Alan Vigner, and Alan Ryder, PGS (SPNA P1.5) [3]*
➤*Poster Station: AA4*

3:10 PM..... Pressure wave-field deghosting for nonhorizontal streamers—C. D. Riyanti* and R. G. van Borselen, PGS; P. M. van den Berg and J. T. Fokkema, Delft U (SPNA P1.6) [4]*
➤*Poster Station: BB2*

3:30 PM .....The factorial kriging technique: A geostatistical tool for acquisition footprints removal–A case study—Pierre-Yves Raya* and Xiao-Ping Li, Fugro Seismic Imaging (SPNA P1.7) [3]*
➤*Poster Station: BB3*

3:50 PM .... Comparison of wavelet selection and band-pass filtering for noise removal for seismic data processing—Ping An, GeoCyber Solutions (SPNA P1.8) [4]*
➤*Poster Station: BB4*

4:10 PM .... Attribute-driven footprint suppression—Scott Falconer*, U of Houston; Kurt J. Marfurt, U of Oklahoma (SPNA P1.9) [3]*
➤*Poster Station: CC1*

Poster Sessions ➤*Wednesday, 12 November*

INT P2 Integrated Studies

Session Chairmen: Sailendra N. Mahapatra and Reinaldo J. Michelena
Room: Exhibit Hall (Wednesday, 12 November)

9:20 AM .... Pannotian breakup (Iapetan opening) features in central Oklahoma—Brian Toelle and Jason Sitchler, Schlumberger; Robert Pfannenstiel, Metro Energy (INT P2.1) [3]*
➤*Poster Station: P1*

9:40 AM ... Prospect characterization of the first 3D seismic survey offshore Cyprus and Lebanon—Øystein Lie*, Cecilie Skiple, and Mark Trayfoot, PGS (INT P2.2) [1]*
➤*Poster Station: P2*

10 AM ..... Analysis of tectonic subsidence of the Colombian Basin, Caribbean Sea—Esteban Alfaro Sabogal*, U Industrial de Santander; German Yury Ojeda, ICP-Ecopetrol (INT P2.3) [5]*
➤*Poster Station: P3*

10:20 AM . Fracture recognition vis-à-vis structural styles in a deep Jurassic reservoir of northern Kuwait.—S. A. Abdulmalik, N. C. Banik*, S. K. Singh, M. Al-Wadi, and M. Al-Dkheel, Kuwait Oil (INT P2.4) [4]*
➤*Poster Station: P4*

10:40 AM . Fault and natural fracture identification from multicomponent seismic at Rulison Field, Colorado—Elizabeth A. LaBarre* and Thomas L. Davis, Colorado School of Mines (INT P2.5) [3]*
➤*Poster Station: Q1*

11 AM..... Stochastic geocellular model of tidal sands in South Tapti gas field using field mapping, satellite image, seismic mapping, and well log data, western India—Subhadeep Chowdhury*, Sourav Saha, and Stuart Burley, BG (INT P2.6) [4]*
➤*Poster Station: Q2*

11:20 AM.. Attribute Expression of mass transport deposits in an intraslope basin–A case study—Supratik Sarkar*, Kurt J. Marfurt, Belinda Ferrero Hodgson, and Roger M. Slatt, U of Oklahoma (INT P2.7) [3]*
➤*Poster Station: Q3*

11:40 AM.. Seismic attribute-assisted interpretation of channel geometries and infill lithology: A case study of Anadarko Basin Red Fork channels—Y. Suarez*, Chesapeake Energy and U of Oklahoma; K. J. Marfurt, U of Oklahoma; M. Falk, Chesapeake (INT P2.8) [2]*
➤*Poster Station: Q4*

NOTES:

Poster Sessions ➤Wednesday, 12 November (continued)

RC P1 Seismic Attribute Applications

Session Chairmen: Yong Xu and Ajoy Biswal
Room: Exhibit Hall (Wednesday, 12 November)

9:20 AM .. Tectonic thermal evolution and oil-gas reservoir in Bachu Upheaval, Tarim Basin, northwest China—J. Zhang and B. Shi, Graduate U of the Chinese Academy of Sciences; Z. Gao, Chang'an U; W. Li, Yanchang Petroleum (RC P1.1) [5]*
➤*Poster Station: EE1*

9:40 AM .... An integrated approach for 3D seismic-based reservoir characterization: An example of northern Chezhen Sag, Shengli oil field—Jun Li, Hongluo Wang*, Shaoguo Yang, and Jianxun Yang, LandOcean Energy Service (RC P1.2) [3]*
➤*Poster Station: EE2*

10 AM ..... Multispectral volumetric curvature adding value to 3D seismic data interpretation—Satinder Chopra, Arcis; Kurt J. Marfurt, U of Oklahoma (RC P1.3) [3]*
➤*Poster Station: EE3*

10:20 AM . Seismic attributes for stratigraphic feature characterization—Satinder Chopra, Arcis; Kurt J. Marfurt, U of Oklahoma (RC P1.4) [3]*
➤*Poster Station: EE4*

10:40 AM . Comparison of petrophysical rock types from core and well-logs using poststack 3D seismic data: Field example from Maracaibo, Venezuela—Francisco Cheng* and Kumar Ramachandran, U of Tulsa; David Contreras, U of Texas (RC P1.5) [4]*
➤*Poster Station: FF3*

11 AM..... Influence of fault transmissibility on seismic attributes based on coupled fluid–flow and geomechanical simulation—D. A. Angus, U of Bristol and U of Leeds; J. P. Verdon, J–M. Kendall, Q. J. Fisher, J. Segura, and S. Skachkov, U of Bristol; M. Dutko and A. J. L. Crook, Rockfield Software (RC P1.6) [4]*
➤*Poster Station: FF4*

11:20 AM.. A synthetic study to investigate the 3D structural effects on AVAZ analyses—Louis Chérel*, Kaveh Dehghan, and Pascal Froidevaux, IFP (RC P1.7) [3]*
➤*Poster Station: FF1*

SPMUL P1 Case Histories

Session Chairmen: Josef Paffenholz and Ketil Hokstad
Room: Exhibit Hall (Wednesday, 12 November)

9:20 AM .. 3D multiple attenuation in the f-xy domain: A case history from Abu Dhabi—M. S. Ben Maroof*, M. S. Al Nahhas, and W. Soroka, Abu Dhabi Co for Onshore Oil Operations; A. Leveque and S. Spitz, CGGVeritas (SPMUL P1.1) [3]*
➤*Poster Station: LL1*

9:40 AM .. Poststack driven prestack deconvolution (PPDEC) for noisy land data and radial trace mixing for signal enhancement—Necati Gulunay* and Nigel Benjamin, CGGVeritas (SPMUL P1.2) [3]*
➤*Poster Station: LL2*

10 AM ..... Delft ≡ inverse scattering surface-related multiple attenuation in three lines—Stewart A. Levin, Halliburton (SPMUL P1.3) [6]*
➤*Poster Station: LL3*

10:20 AM . Multiple attenuation on wide-azimuth towed-streamer data with a model-based two-way wave-equation approach—Zhiyong Jiang, BP E&P (SPMUL P1.4) [3]*
➤*Poster Station: LL4*

10:40 AM . Multiple attenuation using inverse data processing in the plane-wave domain—Jitao Ma*, China U of Petroleum; Mrinal K. Sen, U of Texas; Xiaohong Chen, China U of Petroleum (SPMUL P1.5) [4]*
➤*Poster Station: KK1*

11 AM..... Application of cascaded multiple attenuation on a land 3D data set, southeast Abu Dhabi—Mohamed Samir Al Nahhas* and David Barwick, Abu Dhabi Co for Onshore Oil Operations; Mokhtar Raafat, PGS (SPMUL P1.6) [3]*
➤*Poster Station: KK2*

11:20 AM.. A multiple suppression method via CRS attributes—Stefan Dümmong and Dirk Gajewski, U of Hamburg (SPMUL P1.7) [3]*
➤*Poster Station: KK3*

11:40 AM.. Surface-related multiple elimination based on data-consistence: A case history—Xinwu Huang*, Bing Zhao, and Teng Li, China U of Geosciences (SPMUL P1.8) [4]*
➤*Poster Station: KK4*

TOM P1 Velocity Model Building

Session Chairmen: Jonathan Liu and Robert L. Nowack
Room: Exhibit Hall (Wednesday, 12 November)

9:20 AM ... Imaging permafrost velocity structure using high-resolution 3D seismic tomography—K. Ramachandran*, U of Tulsa; T. Brent, G. Bellefleur, and S. Dallimore, Geological Survey of Canada; M. Riedel, McGill U (TOM P1.1) [3]*
➤*Poster Station: J1*

9:40 AM ... First arrival stochastic tomography: Automatic background velocity estimation using beam semblances and VFSA—Chaoshun Hu*, Paul Stoffa, and Kirk McIntosh, U of Texas (TOM P1.2) [3]*
➤*Poster Station: J2*

10 AM ..... Restoring velocity variations below seafloor with complex topography by geomechanical modeling—Sergey Birdus, CGGVeritas (TOM P1.3) [3]*
➤*Poster Station: J3*

10:20 AM... Resolving small objects using seismic traveltime tomography—David C. Loveday*, John A. Hole, and Matthias G. Imhof, Virginia Tech (TOM P1.4) [3]*
➤*Poster Station: J4*

10:40 AM... Checkshot tomography—Rui Zhang and John Castagna, U of Houston (TOM P1.5) [4]*
➤*Poster Station: K1*

11 AM..... Regularization in slope tomography—J. C. Costa, F. J. C. Silva, and E. N. S. Gomes*, U Federal do Pará; J. Schleicher, Unicamp; A. Melo and D. Amazonas, U Federal do Pará (TOM P1.6) [3]*
➤*Poster Station: K2*

11:20 AM.. 3D wavefield tomography: Synthetic and field data examples—Mike Warner*, Ivan Stekl, and Adrian Umpleby, Imperial College London (TOM P1.7) [3]*
➤*Poster Station: K3*

11:40 AM.. Application of 2D deformable-layer tomostatics in western China—P. Li*, Z. Yan, and Y. He, BGP; H. Zhou, H. Liu, and F. Jiang, Texas Tech U (TOM P1.8) [3]*
➤*Poster Station: K4*

COM 1 Medley

Session Chairmen: Michael E. Smith and Joseph Ellis
Room: Exhibit Hall (Wednesday, 12 November)

1:30 PM .... Elastic parameter AVO approximations and their applications—P. Sun*, X. Lu, Y. Li, Y. Yue, and H. Chen, BGP (COM 1.1) [3]*
➤*Poster Station: NN2*

1:50 PM .... Single sensors versus hard-wired arrays in amplitude analysis—Razvan Lucian Orza* and Ionelia Panea, U of Bucharest (COM 1.2) [4]*
➤*Poster Station: NN1*

2:10 PM ..... Walkaway VSP data imaging using a multilayered anisotropic model—A. Hou*, W. Geng, W. Zhang, B. Wang, H. Wu, W. Wang, and N. Lei, BGP (COM 1.3) [3]*
➤*Poster Station: NN4*

2:30 PM .... Vector Kirchhoff migration of virtual-source VSP data—Min Lou*, Fran Doherty, and James Jackson, VSFusion (COM 1.4) [4]*
➤*Poster Station: MM1*

2:50 PM .... Wide azimuth P-wave fracture detection technology and its application—Wang Jiushuan*, Yang Jing, Huang Zhi, Shao Linhai, Huo Lina, and Xiong Pi, BGP (COM 1.5) [6]*
➤*Poster Station: MM2*

3:10 PM ... Research on the relation between pressure and damage factor of cracked media—Zhihui Zou, Tomographysic Earth System Imaging Ctr; Wenhui Yu, China U of Geosciences (COM 1.6) [3]*
➤*Poster Station: MM3*

3:30 PM ... Velocity anisotropy and X-ray imaging of Barnett shale—N. Dyaur*, G. Kullmann, A. Ortiz, V. Pena, and E. Chesnokov, U of Oklahoma (COM 1.7) [4]*
➤*Poster Station: MM4*

GM P1 Processing and Interpretation

Session Chairmen: S. V. R. Yalamanchili and Mark E. Odegard
Room: Mandalay Bay K (Wednesday, 12 November)

1:50 PM .... An integrated geophysical study of the Wet Mountains, Southern Colorado—Jessica M. Pardo* and G. Randy Keller, U of Oklahoma (GM P1.2) [2]*
➤*Poster Station: A1*

2:10 PM .... Continuous wavelet transform of potential fields with different choices of analyzing wavelets—Maurizio Fedi* and Lorenzo Cascone*, U de Napoli and U Federico II (GM P1.3) [3]*
➤*Poster Station: A2*

ST P1 Interferometry, Imaging, and Attributes

Session Chairmen: Gary Harris and Steve Checkles
Room: Exhibit Hall (Wednesday, 12 November)

1:30 PM .... On the estimation of local slopes—J. Schleicher*, U Estadual de Campinas; J. C. Costa, U Federal do Pará; L. T. Santos, A. Novais, and M. Tygel, U Campinas (ST P1.1) [2]*
➤*Poster Station: QQ2*

1:50 PM .... Dip-angle common-image gathers by wave-equation migration—Thomas J. Browaeys, U of Texas (ST P1.2) [4]*
➤*Poster Station: QQ3*

2:10 PM .... Controlled-source seismic interferometry by multidimensional deconvolution: Stability aspects with various numbers of sources and receivers—Joost van der Neut*, Jürg Hunziker, Kees Wapenaar, and Evert Slob, Delft U (ST P1.3) [5]*
➤*Poster Station: RR1*

2:30 PM .... Interferometric extrapolation of OBS and SSP data—Shuqian Dong* and Gerard T. Schuster, U of Utah (ST P1.4) [3]*
➤*Poster Station: RR2*

2:50 PM..... Demonstration of super-resolution and super-stacking properties of time-reversal mirrors—W. Cao, G. T. Schuster, G. Zhan, S. M. Hanafy, and C. Boonyasiriwat, U of Utah (ST P1.5) [3]*
➤*Poster Station: RR3*

3:10 PM .... Estimating frequency-dependent seismic attributes by matching pursuit: A case study—T. Zhang*, China U of Geosciences and Edinburgh Anisotropy Project; X.-Y. Li and M. Chapman, U of Edinburgh and BGS (ST P1.6) [3]*
➤*Poster Station: RR4*

Poster Sessions ➤Wednesday, 12 November (continued)

SVIP P1 Prestack Modeling and Inversion

Session Chairmen: Joe Zhou and Turgut Ozdenvar
Room: Exhibit Hall.....(Wednesday, 12 November)

1:30 PM .... Seismic modeling application on structure interpretation, Sipororo Field, Venezuela—Q. Liao*, W. Cai, M. la Cruz, L. Benkovis, and F. Ortigosa, Repsol YPF (SVIP P1.1) [3]*
➤*Poster Station: CC2*

1:50 PM .... Velocity analysis and quality control from substacks—Roy White, U of London; Chris Page, PGS (SVIP P1.2) [3]*
➤*Poster Station: CC3*

2:10 PM .... Offset-dependent NMO correction—Zhengyun Zhou*, U of Houston; Fred Hilterman, Geokinetics (SVIP P1.3) [3]*
➤*Poster Station: CC4*

2:30 PM .... Array forming and prestack stereotomography—Cezar Iacob* and Ionelia Panea, U of Bucharest (SVIP P1.4) [4]*
➤*Poster Station: DD1*

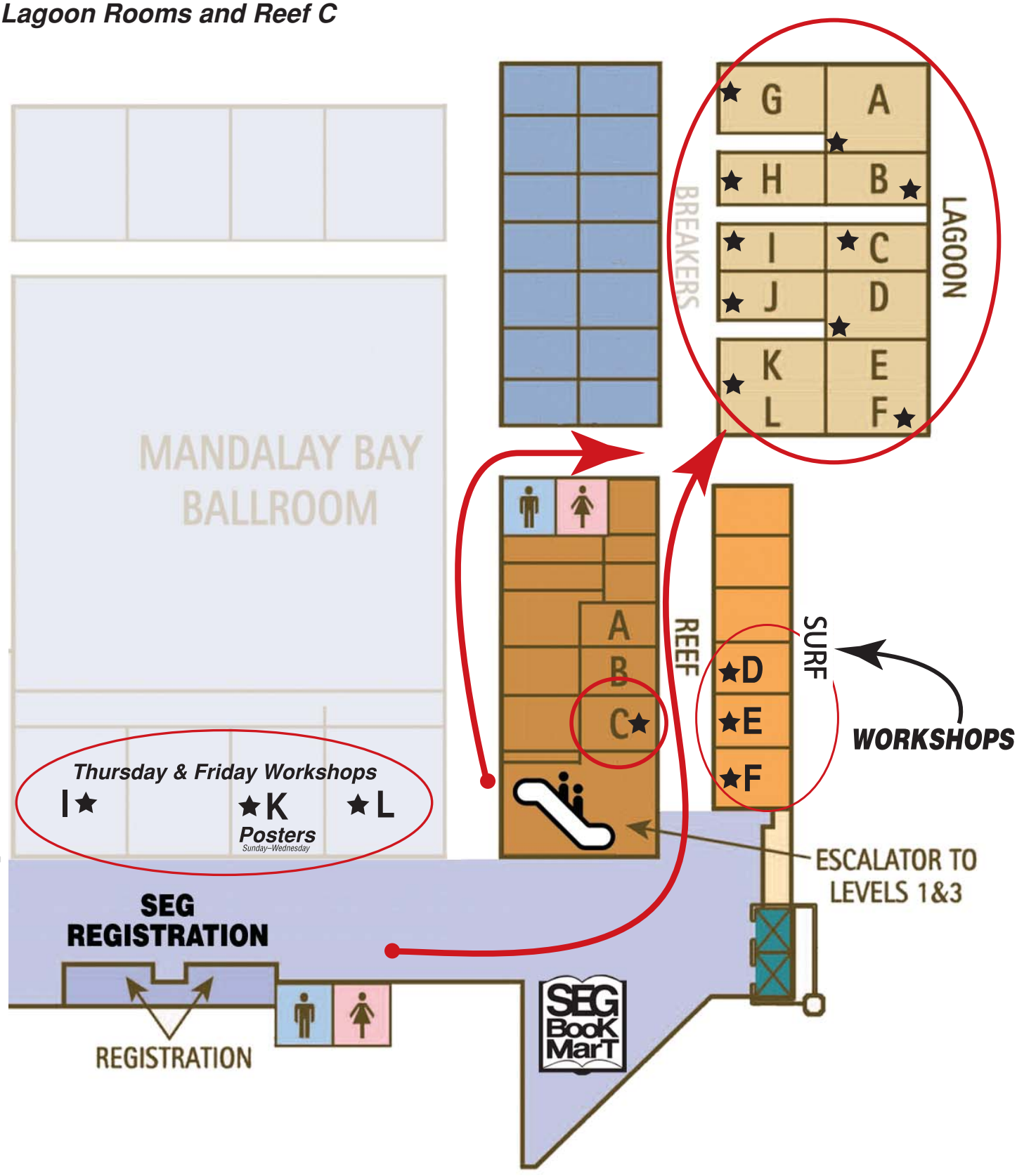
2:50 PM .... Automatic migration velocity analysis and multiples—Wim A. Mulder*, Shell Int'l E&P; Tristan van Leeuwen, Delft U (SVIP P1.5) [4]*
➤*Poster Station: DD2*

3:10 PM .... Time migration velocity analysis by image-wave propagation of common-image gathers—J. Schleicher*, Unicamp; J. C. Costa; U Federal do Pará; A. Novais, Unicamp (SVIP P1.6) [2]*
➤*Poster Station: DD3*

NOTES:

Level 2

Technical Session Rooms
Lagoon Rooms and Reef C



TECHNICAL ORAL SESSIONS AT A GLANCE

Mandalay Bay Convention Ctr	MONDAY PM	TUESDAY AM	TUESDAY PM	WEDNESDAY AM	WEDNESDAY PM	THURSDAY AM
Lagoon KL	**TOM 1:** Migration Velocity Analysis and Refraction Tomography	**SPMI 1:** Frontiers	**TOM 2:** Migration Velocity Analysis	**SPMI 2:** Illumination and Image Attributes	**SPMI 3:** Computational Methods	**SPMI 4:** Practical Solutions
Lagoon EF	**CH 1:** Gulf of Mexico	**ANI 1:** Advances	**MAZ 1:** Case Studies and Methods	**AVO 1:** Amplitude Variation with Offset	**CH 2:** International Offshore	**CH 3:** Onshore
Lagoon G	**SS 1:** Recent Advances and the Road Ahead	**SS 3:** Innovations in Geophysics: A Tribute to Rodney Calvert	**SS 4:** Best of AAPG	**SS 5:** Simultaneous Sources: Recent Advances and Application to Wide Azimuth	**SS 6:** Site Characterization and Geophysical Monitoring for CO_2 Storage	**SS 7:** High-performance Computing
Lagoon A	**SI 1:** Applications	**SPMUL 1:** Surface Multiple Prediction and Subtraction	**SPMUL 2:** Internal Multiples and Novel Approaches	**SI 2:** Theory, Time Domain	**SI 3:** Theory, Frequency Domain	**SI 4:** AVO, Laplace, others
Lagoon H	**RC 1:** Inversion: Application and Uncertainty	**RC 2:** Meaningful Attributes and their Application	**INT 1:** Integrated Studies	**ST 1:** Interferometry and Anisotropy	**INT 2:** Attributes, Workflows, and Visualization	**ST 2:** Layered Media, Sampling and Wave Propagation
Lagoon I	**SPNA 1:** Coherent Noise Suppression	**ACQ 1:** Equipment, Methods, and Models	**RC 3:** Modeling, Monitoring, and Dispersion	**ACQ 2:** Marine	**ACQ 3:** Land	**SPNA 2:** Random Noise Attenuation
Lagoon J	**PSC 1:** Event Location and Interferometry	**EM 1:** Modeling and Inversion I	**EM 2:** Modeling and Inversion II	**PSC 2:** Interpretation and Case Histories	**EM 3:** Acquisition, Processing, and Applications	**SVIP 2:** Model Building for Complex Imaging
Lagoon B	**TL 1:** Case Studies	**TL 2:** Land, CO_2, and New Developments	**SM 1:** Numerical Modeling of Seismic Wave Propagation using Discrete Methods	**SVIP 1:** Velocity Anisotropy or Heterogeneity?	**SM 2:** General Seismic Modeling of Structures	**VSP 2:** 2D VSP Data Enhancement and Imaging Techniques
Lagoon C	**MC 1:** Parameter Estimation	**RP 1:** Core to Field Scale Measurements and Models for Shales and Sands	**MC 2:** Processing	**RP 2:** Carbonate Rock Property Measurements and Modeling	**RP 3:** Unconventionals: Heavy Oil and Hydrate Applications and Modeling	**RP 4:** Applied Rock Physics Models
Lagoon D	**VSP 1:** 3D VSP, Acquisition, Processing, and Interpretation	**GM 1:** 4D Gravity, Borehole, and Interpretation	**GM 2:** Global Models and Interpretation	**MIN 1:** Methodology	**BG 2:** Sonic Logging and Acoustic	**MIN 2:** Methodology and Case Histories
Reef C	**SS 2:** Hydrogeophysics in Practice	**BG 1:** Resistivity and EM	**NSE 1:** GPR, EM, Electrical, and Seismic for Water	**NSE 2:** Inversion and Engineering Applications	**NSE 3:** Seismic	**SS 8:** Near Real-time UXO Discrimination

Abbreviation/Topic:

ACQ.....Acquisition and Survey Design
ANI.....Anisotropy
AVO.....AVO
BG.....Borehole Geophysics
CH.....Case Histories
EM.....EM Exploration
GM.....Gravity and Magnetics
INT.....Interpretation
MAZ.....Multiazimuth Technology
MC.....Multicomponent
MIN.....Mining and Geothermal
NSE.....Near Surface and Environmental
PSC.....Passive Seismic and Crosswell
RC.....Reservoir Characterization
RP.....Rock Properties
SI.....Seismic Inversion
SM.....Seismic Modeling
SPMI.....Seismic Processing: Migration
SPMUL...Seismic Processing: Multiples
SPNA.....Seismic Processing: Noise Attenuation
SS.....Special Session
ST.....Seismic Theory
SVIP.....Seismic Velocity Interpretation and Processing
TL.....Time Lapse
TOM.....Tomography
VSP.....VSP

**** Number in brackets indicates intended audience***

1 = Little or no detailed knowledge of general topic area
2 = Heard of topic area but has no direct experience
3 = Some knowledge and experience in topic area
4 = Significant knowledge and experience in topic area
5 = Detailed knowledge and experience in topic area
6 = Domain area specialists

Technical Program Special Sessions ➤Monday thru Thursday

Special Sessions

Monday, November 10

SS 1: Recent Advances and the Road Ahead

Session Chairmen: Kurt M. Strack, Yoram Shoham, and Ran Bachrach
Room: Lagoon G

1:30 PM ..... Seismic imaging: Today and tomorrow—Dave Nicols, WesternGeco (SS 1.1)
1:55 PM ..... Directional resistivity tools and their business impacts—Ian Zhang, Shell Int'l E&P (SS 1.2) [2]*
2:20 PM ..... CSEM: A fast growing technology—S. Ellingsrud and T. Eidesmo, EMGS (SS 1.3)
2:45 PM ..... Geophysical fluid pressure prediction in the presence of multiple pressure mechanisms and complex geology with applications to deep wells—Alan R. Huffman and Richard W. Lahann, Fusion Petroleum Technologies (SS 1.4) [2]*
3:10 PM ..... SEAM: High-value geophysical modeling—Mike Fehler*, MIT, Arthur Cheng, Cambridge GeoSciences, Ken Larner, SEAM Board, Peter Pangman, SEG (SS 1.5) [2]*
3:35 PM ..... Subbasalt depth imaging using simultaneous joint inversion of seismic and electromagnetic (MT) data: A CRB field study—D. Colombo*, M. Mantovani, S. Hallinan, and M. Virgilio, WesternGeco (SS 1.6) [5]*
4 PM..... Emerging geophysical technologies for reservoir monitoring in intelligent fields—S. Dasgupta and M.A. Jarvis, Saudi Aramco (SS 1.7)
4:25 PM ..... Seismic imaging is in the mind and at the fingertips: The future of the seismic imaging business—Francisco Ortigosa, Repsol (SS 1.8) [4]*

Monday, November 10

SS 2: Hydrogeophysics in Practice

Session Chairmen: Robert W. Jacob and Wendy Wempe
Room: Reef C

1:30 PM ..... Understanding the relationship between audiomagneto-telluric data and models, and borehole data in a hydrological environment—Darcy K. McPhee*, U.S. Geological Survey; Louise Pellerin, Green Engineering (SS 2.1) [3)]*
1:55 PM ..... Integrated use of geophysics, drillings, logs, and geochemistry in large-scale groundwater mapping—Verner H. Øndergaard *, Geological Survey of Denmark and Greenland; Esben Auken, U of Aarhus (SS 2.2) [4]*
2:20 PM ..... The application of latest borehole geophysical technologies for the feasibility and pilot testing ASR—Ibrahim Shawky, Schlumberger (SS 2.3) [0]*
2:45 PM ..... Characterization of the Lower Quebrada de Oro, Mayagüez aquifer system using surface geophysical techniques—Deborah T. Abrams Rivera*, U of Puerto Rico (SS 2.4) [3]*
3:10 PM ..... Mapping the nitrate plume at Hanford's BC Cribs with electrical resistivity—Dale F. Rucker, hydroGeophysics (SS 2.5) [2]*
3:35 PM ..... Site characterization for groundwater using controlled-source electromagnetics—C. R. Miller*, MSE Technology Applications, and P. S. Routh, ConocoPhillips (both formerly at Boise State U); T. Brosten and P. Donaldson, Boise State U (SS 2.6) [3]*
4 PM ..... A multiscale stratigraphic analysis of shallow unconsolidated sediments: A new approach for hydrogeophysical characterization in heterogeneous environments for contaminant remediation—Antonio E. Cameron-González*, Camelia Knapp, and Adrian Addison, U of South Carolina; Michael Waddell, Earth Sciences and Resources Inst. (SS 2.7) [5]*
4:25 PM ..... Geophysical and geochemical attenuated signatures associated with hydrocarbon contaminated site undergoing bioremediation—V. Che-Alota* and E. Atekwana, Oklahoma State U; W. A. Sauck and S. Rossbach, Western Michigan U; C. Davis, U of Missouri; J. Nolan and L. Slater, Rutgers U; D. Werkema, U.S. EPA (SS 2.8) [3]*

Tuesday, November 11

SS 3: Innovations in Geophysics: A Tribute to Rodney Calvert

Session Chairmen: Albena Mateeva and Alexander S. Calvert
Room: Lagoon G

8:30 AM ..... Always looking to improve things is fun—Ken Larner, Colorado School of Mines (SS 3.1) [1]*
8:55 AM ..... Virtual source method: Overview of history and development—Andrey Bakulin* and Rodney Calvert, Shell Int'l E&P (SS 3.2) [2]*
9:20 AM ..... Seismic interferometry by crosscorrelation or deconvolution?—K. Wapenaar, J. van der Neut, E. Ruigrok, D. Draganov, E. Slob, and J. Thorbecke, Delft U; R. Snieder, Colorado School of Mines (SS 3.3) [3]*
9:45 AM ..... The critical angle in seismic interferometry—K. van Wijk*, Boise State U; A. Calvert, ION GX Technology; M. Haney, USGS Alaska Volcano Observatory; D. Mikesell, Boise State U; R. Snieder, Colorado School of Mines (SS 3.4) [2]*
10:10 AM ... Source strength variations and 4D seismic—Martin Landro*, Norwegian U of Science and Technology (SS 3.5) [3]*
10:35 AM ... Innovation in geophysics—Ian Jack, consultant (SS 3.6) [3]*
11 AM..... The effect of low aspect-ratio pores on the seismic anisotropy of shales—Colin M. Sayers, Schlumberger (SS 3.7) [3]*
11:25 AM.... The dawn of nonlinear geophysics in exploration—Dirk Smit, Shell Int'l E&P (SS 3.8) [1]*

Special Sessions

Tuesday, November 11

SS 4: Best of AAPG

Session Chairmen: Michelle Fullen and Michael Srozynski
Room: Lagoon G

1:30 PM ..... Extension, shortening, and salt tectonics at a Paleozoic transcurrent plate boundary: Cumberland—John W. F. Waldron*, U of Alberta; Michael C. Rygel, State U of New York (SS 4.1) [2]*

1:55 PM ..... Seismic stratigraphy and seismic geomorphology of a slope depositional environment: Case study from offshore Angola, West Africa—H. W. Posamentier, N. Drinkwater*, J. Clark, A. Fildani, T. McHargue, M. Pyrcz, B. Romans, and M. Sullivan, Chevron Energy Technology (SS 4.2) [2]*

2:20 PM ..... Turbidity current flow out of channels and its contribution to constructing the Continental Slope—Kyle M. Straub*, U of Minnesota; David Mohrig and James Buttles, U of Texas (SS 4.3) [2]*

2:45 PM ..... New velocity model building techniques to reduce subsalt exploration risk—R. Stephan Petmecky*, Martin L. Albertin, and Nick Burke, BP Exploration (SS 4.4) [3]*

3:10 PM ..... Seismic reservoir characterization of a gas shale azimuthal seismic data processing, prestack seismic inversion and ant tracking—D. Paddock, C. Stolte, J. Young, P. Kist, L. Zhang, and J. Durrani, Schlumberger (SS 4.5) [3]*

3:35 PM ..... The relationship between deepwater deposition and an active accretionary wedge, ultradeep water, Trinidad—P. N. Eisner*, M. Etemadi, L. Benkovic, L. Anzulovich, and D. Jones, Repsol YPF; J. Gerard, Repsol Exploración (SS 4.6) [3]*

4 PM ..... Interpretation of seismic data in the Wheeler domain: Integration with well logs, regional geology, and analogs—Friso Brouwer*, Geert de Bruin, Paul de Groot, and David Connolly, dGB (SS 4.7) [3]*

4:25 PM ..... Chracterization of the Sligo (Lower Cretaceous- Aptian) Platform margin in south Texas: Understanding facies distribution using 3D seismic and modern analogs—Christopher J. Modica* and David J. Katz, Pioneer Natural Resources (SS 4.8) [3]*

Wednesday, November 12

SS 5: Simultaneous Sources: Recent Advances and Application to Wide Azimuth

Session Chairmen: A. J. Berkhout and Craig J. Beasley
Room: Lagoon G

8:30 AM ..... Simultaneous sources: A technology whose time has come—Craig J. Beasley, WesternGeco (SS 5.1) [3]*

8:55 AM ..... Simultaneous source separation by sparse Radon transform—P. Akerberg*, G. Hampson, J. Rickett, H. Martin, and J. Cole, Chevron (SS 5.2) [3]*

9:20 AM ..... Simultaneous source separation using dithered sources—I. Moore*, B. Dragoset, T. Ommundsen, D. Wilson, C. Ward, and D. Eke, WesternGeco (SS 5.3) [2]*

9:45 AM ..... Simultaneous source separation: A prediction-subtraction approach—Simon Spitz*, CGGVeritas; Gary Hampson, Chevron Energy Technology; Antonio Pica, CGGVeritas (SS 5.4) [3]*

10:10 AM .... Acquisition using simultaneous sources—Gary Hampson*, Joe Stefani, and Fred Herkenhoff, Chevron Energy Technology (SS 5.5) [2]*

10:35 AM .... Flam–A simultaneous source wide-azimuth test—Eivind Fromyr*, Guillaume Cambois, Ruth Loyd, and Jack Kinkead, PGS (SS 5.6) [2]*

11 AM..... Independent simultaneous sweeping—A method to increase the productivity of land seismic crews—Dave Howe, Mark Foster, Tony Allen, and Brian Taylor, BP; Ian Jack*, consultant (SS 5.7) [3]*

11:25 AM .... From simultaneous shooting to blended acquisition—A. J. (Guus) Berkhout*, Gerrit Blacquiére, and Eric Verschuur, Delft U (SS 5.8) [4]*

Wednesday, November 12

SS 6: Site Characterization and Geophysical Monitoring for CO_2 Storage

Session Chairmen: Kevin Dodds and Michel Verliac
Room: Lagoon G

1:30 PM ..... Multiphase flow of CO_2 and brine in saline aquifers—Sally M. Benson, Stanford U (SS 6.1) [3]*

1:55 PM ..... Seismic monitoring of CO_2 geosequestration: Realistic capabilities and limitations—D. Lumley, D. Adams, R. Wright, D. Markus, and S. Cole, 4th Wave Imaging (SS 6.2) [3]*

2:20 PM ..... Geophysical monitoring in the IEA GHG Weyburn-Midale CO_2 monitoring and storage—D. J. White, Geological Survey of Canada (SS 6.3) [2]*

2:45 PM ..... Thief zone identification through seismic monitoring of a CO_2 flood, Weyburn Field, Saskatchewan—Alexandre W. Araman*, Matthew Hoffman, and Thomas L. Davis, Colorado School of Mines (SS 6.4) [2]*

3:10 PM ..... Integration of 3D seismic with satellite imagery at In Salah CO_2 Sequestration Project, Algeria—S. Raikes, A. Mathieson, and D. Roberts, BP Alternative Energy; P. Ringrose, StatoilHydro (SS 6.5) [3]*

Technical Program Special Sessions ➤Monday thru Thursday

Wednesday, November 12

SS 6: Site Characterization and Geophysical Monitoring for CO_2 Storage *(continued)*

3:35 PM ..... Application of geophysical monitoring within the Otway Project SE Australia—M. Urosevic* and A. Kepic, Curtin U; D. Sherlock, Chevron (formerly at CSIRO); T. Daley and B. Freifeld, LBNL; S. Sharma, CO_2CRC; K. Dodds, BP AlternativEnergy (formerly at CSIRO) (SS 6.6) [4]*

4 PM ..... Integration of crosswell CASSM (continuous active source seismic monitoring) and flow modeling for imaging of a CO_2 plume in a brine aquifer—Thomas M. Daley*, Jonathan B. Ajo-Franklin, and Christine Doughty, Lawrence Berkeley Nat'l Lab (SS 6.7) [3]*

4:25 PM ..... The effects of geomechanical deformation on seismic monitoring of CO_2 sequestration—J. P. Verdon*, D. A. Angus, and J.-M. Kendall, U of Bristol; J. Segura, S. Skachkov, and Q. J. Fisher, U of Leeds (SS 6.8) [4]*

Thursday, November 13

SS 7: High-performance Computing

Session Chairmen: Scott A. Morton and Henri Calandra
Room: Lagoon G

8:30 AM ..... An implementation of the acoustic wave equation on FPGAs—T. Nemeth*, J. Stefani, and W. Liu, Chevron; R. Dimond and O. Pell, Maxeler; Ray Ergas (formerly Chevron) (SS 7.1) [4]*

8:55 AM ..... Seismic wave propagation on GPUs—Alex Loddoch* and Bill Volz, Chevron ETC (SS 7.2)

9:20 AM ..... GPGPU accelerated time migration for oil and gas exploration—Sergio E. Zarantonello* and Bruno Kaelin, 3DGeo; Michael Brown, SGI (SS 7.3)

9:45 AM ..... Evaluation of 3D RTM on HPC—F. Ortigosa, Repsol YPF; M. Araya-Polo, F. Rubio, M. Hanzich, R. de la Cruz, and J. M. Cela, Barcelona Supercomputing Ctr (SS 7.4) [4]*

10:15 AM ... Performance analysis for optimizing the finite difference algorithm on FPGAs, GPUs, Cell, and x86_64 hardware—Christof Stork, Tierra Geophysical (SS 7.5)

10:35 AM ... Seismic wavefield modeling using high performance computing—M. Käser*, J. de al Puente, C. Castro, and V. Hermann, Ludwig-Maximilians U; Michael Dumbser, U of Trento; Orlando Rivera, LRZ Garching (SS 7.6) [3]*

11 AM..... Prestack seismic visualization with angle migration examples—F. Pfreundt, N. Ettrich, D. Merten, B. Shea, S. Foss, M. Rhodes, A. Osen (SS 7.7)

11:25 AM.... SCEC Shakeout2 simulations of large earthquakes on the southern San Andreas—Kim Olsen and Steven Day, San Diego State U; Yifeng Cui, Jing Zhu, Amit Chourasia, and Reagan Moore, San Diego Supercomputer Center; Phil Maechling and Tom Jordan, U of Southern California (SS 7.8)

Thursday, November 13

SS 8: Near Real-time UXO Discrimination

Session Chairmen: Dean Keiswetter and David A. Smith
Room: Reef C

8:30 AM ..... Initiatives in advanced geophysical analysis for munitions response at ESTCP and SERDP—Anne Andrews, Office of the Secretary of Defense (U.S.) Strategic Environmental R&D Program (SS 8.1) [1]*

8:55 AM ..... Geophysical detection and discrimination for UXO remediation—G. H. Ware*, H. A. Ware, W. F. Tompkins, Geophysical Assoc; D. A. Smith, Zapata Blackhawk (SS 8.2) [3]*

9:20 AM ..... ALLTEM UXO detection and discrimination—T. H. Asch*, D. L. Wright, C. W. Moulton, and T. P. Irons, U.S. Geological Survey; M. N. Nabighian, Colorado School of Mines (SS 8.3) [3]*

9:45 AM ..... UXO discrimination using a multiple-component AEM system—E. Gasperikova*, J. T. Smith, H. F. Morrison, A. Becker, and K. Kappler, Lawrence Berkeley Nat'l Lab (SS 8.4) [3]*

10:10 AM..... An assessment of three dipole-based programs for estimating UXO target parameters with induction EM—D. D. Snyder*, Snyder Geoscience; D. C. George, G&G Sciences; S. C. MacInnes, Zonge Engineering; J. T. Smith, Lawrence Berkeley Lab (SS 8.5) [2]*

10:35 AM ... EMI array for cued UXO discrimination—T. Bell*, SAIC; H. Nelson, Naval Research Lab; D. George, G&G Sciences; D. Steinhurst, Nova Research; J. Kingdon and D. Keiswetter, SAIC (SS 8.6) [4]*

11 AM..... Identification of unexploded ordnance from clutter using neural networks—Anna Szidarovszky*, Zonge Engineering; Mary Poulton, U of Arizona; Scott MacInnes, Zonge (SS 8.7) [3]*

11:25 AM.... Digital geophysical mapping using an autonomous robot—Jim Hild, Zapata Blackhawk (SS 8.8) [3]*

Oral Sessions ➤Monday, 10 November

CH 1 Gulf of Mexico

Session Chairmen: Les Denham and Don Frye
Room: Lagoon EF (Monday, 10 November)

1:30 PM .... Enhanced anisotropic model building methodology and prestack depth imaging in deep water Gulf of Mexico: A case history—W. Whiteside*, W. Xu, Z. Li, A. Lundy, and I. Chang, TGS-Nopec (CH 1.1) [2]*

1:55 PM .... Unlocking the full potential of Atlantis with OBS nodes—John Howie*, Patrice Mahob, David Shepherd, and Gerard Beaudoin, BP (CH 1.2) [3]*

2:20 PM .... Controlled beam migration applications in the Gulf of Mexico—Chu-Ong Ting* and Daoliu Wang, CGGVeritas (CH 1.3) [2]*

2:45 PM ..... Addressing challenges in deep-water Gulf of Mexico depth imaging through geologic models and acquisition simulation–The Tempest Project—Adam Seitchik, Devon Energy*; David Kessler, SeismicCity (CH 1.4) [3]*

3:10 PM .... A realistic deep water Gulf of Mexico 3D simulation and imaging–The Tempest simulation, data sets and imaging—D. Kessler*, J. Codd, F. Hoxha, and C. Pignol, SeismicCity; A. Bridge, R. Brietzke, A. Seitchik, and D. Jurick, Devon Energy (CH 1.5) [3]*

3:35 PM .... Evaluating the accuracy of deep-water Gulf of Mexico depth imaging–The Tempest results—Richard Brietzke*, Alex Bridge, Dana Jurick, and Adam Seitchik, Devon Energy (CH 1.6) [3]*

4 PM ..... Challenges in time and depth: Imaging the Eastern Delta OBC survey, a case history—S. Baldock*, B. Miller, C. Reta-Tang, G. Rodriguez, and J. Specht, TGS-Nopec Geophysical (CH 1.7) [3]*

4:25 PM .... Comparison of frequency attributes from CWT and MPD spectral decompositions of a complex turbidite channel model—C. I. Puryear*, S. Tai, and J. P. Castagna, U of Houston; R. Masters and F. Dwan, Shell Int'l E&P (CH 1.8) [4]*

MC 1 Parameter Estimation

Session Chairmen: Vikram Sen and Mike Hall
Room: Lagoon C (Monday, 10 November)

1:30 PM .... A new method to extract reliable density information from PS waves—Keshan Zou, WesternGeco/Schlumberger (MC 1.1) [3]*

1:55 PM .... A method for compensation for offset-dependent tuning and differential attenuation in converted-wave data—Rishi Bansal, Vijay Khare, and Alex Martinez, ExxonMobil Upstream Research (MC 1.2) [3]*

2:20 PM .... PP-PS dual inversion applied to 2D, 3-C seismic data: Xushen gas field, Daqing, China—L. Shen*, J. J. Liu, and D. Mougenot, Sercel; J. M. Wang, Daqing Geophysical (MC 1.3) [3]*

2:45 PM .... Three-component converted-wave data processing and its application in a complicated area—X. Guo*, X. Jiang, G. Zhang, Y. Hou, X. Feng, and C. Tian, BGP (MC 1.4) [3]*

3:10 PM .... Case history: Converted-wave splitting estimation and compensation—Jim Simmons, ION Geophysical (MC 1.5) [3]*

3:35 PM .... Simultaneous P- and S-wave interval velocity model building of near-seafloor geology using OBC data—Paul E. Murray* and Michael V. DeAngelo, U of Texas - Austin (MC 1.6) [2]*

4 PM ..... Automated C-wave registration by simulated annealing—Jianxin Jerry Yuan*, Girish Nathan, Alex Calvert, and Robert Bloor, ION GXT Imaging (MC 1.7) [3]*

4:25 PM .... Analysis on the multicomponent seismic amplitudes—P. Sun*, Y. Li, A. Hou, H. Chen, Y. Yue, and F. Yu, BGP (MC 1.8) [3]*

PSC 1 Event Location and Interferometry

Session Chairmen: Vladimir Grechka and Karl Bertussin
Room: Lagoon J (Monday, 10 November)

1:30 PM .... Traveltimes and waveforms of microseismic data in heterogeneous media—Hom Nath Gharti*, Volker Oye, and Michael Roth, Norsar (PSC 1.1) [3]*

1:55 PM .... Locating microseismic events with time reversed acoustics: A synthetic case study—Rongrong Lu*, M. Nafi Toksöz, and Mark E. Willis, MIT (PSC 1.2) [2]*

2:20 PM .... Microseismic inversion by least-squares time reversal and waveform fitting—W. Scott Leaney, Schlumberger (PSC 1.3) [4]*

2:45 PM .... Microearthquake monitoring with sparsely sampled data—Paul Sava, Colorado School of Mines (PSC 1.4) [4]*

3:10 PM .... Continuous microseismic mapping for real-time event detection and location—Gwénola Michaud and Scott Leaney, Schlumberger (PSC 1.5) [3]*

3:35 PM .... Source distribution in interferometry for wave and diffusion—Yuanzhong Fan* and Roel Snieder, Colorado School of Mines (PSC 1.6) [2]*

4 PM ..... Seismic virtual reflector–Synthesis and composition of virtual wavefields—Flavio Poletto* and Biancamaria Farina, OGS (PSC 1.7) [3]*

4:25 PM .... Comparing virtual versus real crosswell surveys—K. Mehta*, A. Bakulin, D. Kiyashchenko, and J. Lopez, Shell Int'l E&P (PSC 1.8) [3]*

RC 1 Inversion: Application and Uncertainty

Session Chairmen: Kurt J. Marfurt and Satinder Chopra
Room: Lagoon H (Monday, 10 November)

1:30 PM .... 3D inversion of lithological properties in the Gullfaks Brent Group—Anders Dræge* and Youness El Ouair, Statoil (RC 1.1) [3]*

1:55 PM .... Increasing the impedance bandwidth by joint geostatistical inversion of conventional and 3DHR seismic data—Leon Barens and Jan Mersmann, Total E&P (RC 1.2) [4]*

2:20 PM .... Deterministic mapping of reservoir heterogeneity in Athabasca oil sands using surface seismic data—Yong Xu* and Satinder Chopra, Arcis (RC 1.3) (2]*

2:45 PM .... Seismic attributes used for reservoir simulation: Application to a heavy oil reservoir in Canada—Carmen C. Dumitrescu*, Sensor Geophysical; Larry Lines, U of Calgary (RC 1.4) [4]*

3:10 PM.... **Porosity, fluid discrimination, and monitoring from prestack seismic data: A case from Campos Basin, Brazil**—F. S. Moraes*, L. G. C. L. Loures, and S. A. M. Oliveira, U Estadual do Norte Fluminense; I. L. S. Braga, Invision; K. Tomaso, Marimonica; R. J. Carvalho, S. R. Malagutti, and E. F. da Costa, Petrobras (RC 1.5) [3]*

3:35 PM.... **Joint Bayesian inversion for reservoir characterization and uncertainty quantification**—Tiancong Hong and Mrinal K. Sen, U of Texas (RC 1.6) [2]*

4 PM..... **Comparison of uncertainty estimates from deterministic and geostatistical inversion**—Mark Sams* and Denis Saussus, Fugro-Jason (RC 1.7) [3]*

4:25 PM.... **Markov Bayes simulation for structural uncertainty estimation**—S. Sil, S. Srinivasan*, and M. Sen, U of Texas; J. J. Ríos López and M. Moreno Vidal, Pemex; A. Rusic and M. González, G&W Systems (RC 1.8) [3]*

SI 1 Applications

Session Chairmen: Mauricio D. Sacchi and Cengiz Esmersoy
Room: Lagoon A (Monday, 10 November)

1:30 PM.... **Prestack seismic inversion based case study on tight laminated sands from the east coast of India**—R. K. Mallick, GSPC; A. Mukherjee*, C. Shepherd, S. Assefa, S. Rajput, and S. Dubey, Schlumberger (SI 1.1) [3]*

1:55 PM.... **Seismic inversion to map the hard streak layer and porosity distribution in carbonate reservoir: A case study from the western offshore basin of India**—S. K. Pokhriyal*, S. Dotiwala, A. Sanyal, P. S. Basak, and A. Deb, Oil & Natural Gas Corp (SI 1.2) [3]*

2:20 PM.... **Toward direct detection of gold bearing rock formations from seismic data: St. Ives Gold Camp, Western Australia**—Christopher Harrison* and Milovan Urosevic, Curtin U (SI 1.3) [2]*

2:45 PM.... **Near-surface imaging with traveltime and waveform inversion**—Priyank Jaiswal* and Colin A. Zelt, Rice U; Rahul Dasgupta, Oil India (SI 1.4) [3]*

3:10 PM.... **Joint seismic and well-log inversion for the estimation of water saturation, porosity, and acoustic impedance in a gas reservoir**—M. Bosch*, C. Carvajal, J. Rodríguez, and A. Torres, U Central de Venezuela; M. Aldana, U Simón Bolívar; J. Sierra, IGS Services (SI 1.5) [3]*

3:35 PM.... **Interbed multiple attenuation in seismic inversion: Case study of Mutriba gas field, Kuwait**—O. Al-Khaled, J. Al-Jenaie*, and I. Mohamed, Kuwait Oil; G. Lecante and S. Nguyen, Beicip-Franlab (SI 1.6) [3]*

4 PM..... **High-resolution reservoir characterization by 2D model-driven seismic Bayesian inversion: An example from a Tertiary deltaic clinoform system in the North Sea**—Daria Tetyukhina*, Stefan M. Luthi, Lucas J. van Vliet, and Kees Wapenaar, Delft U (SI 1.7) [3]*

4:25 PM.... **A global acoustic impedance inversion for porosity and lithology prediction in northern Gulf of Mexico**—A. Koesoemadinata*, N. Banik, V. Agarwal, S. Singh, and J. Durrani, DCS Reservoir Seismic Services and WesternGeco (SI 1.8) [3]*

SPNA 1 Coherent Noise Suppresion

Session Chairmen: Gerard J. Beaudoin and Necati Gulunay
Room: Lagoon I (Monday, 10 November)

1:30 PM.... **Attenuation of coherent noise using localized-adaptive eigenimage filter**—Stephen K. Chiu* and Jack E. Howell, ConocoPhillips (SPNA 1.1) [3]*

1:55 PM.... **Model-based noise suppression using nonstationary filters**—Saleh M. Al-Saleh, Saudi Aramco (SPNA 1.2) [3]*

2:20 PM.... **Antialias spatial filtering: A slowness-frequency approach**—Ashwani Dev* and George A. McMechan, U of Texas (SPNA 1.3) [4]*

2:45 PM.... **Characterization of spatially varying surface waves in a land seismic survey**—W. S. Ross*, S. Lee, M. S. Diallo, M. L. Johnson, A. P. Shatilo, J. E. Anderson, and A. Martinez, ExxonMobil Upstream Research (SPNA 1.4) [4]*

3:10 PM.... **3D mitigation of surface-wave noise in spatially inhomogeneous media**—Sunwoong Lee* and Warren S. Ross, ExxonMobil Upstream Research (SPNA 1.5) [4]*

3:35 PM.... **Retrieval and suppression of surface waves using interferometry by correlation and by deconvolution**—Ivan Vasconcelos*, James Gaiser, Alex Calvert, and Carlos Calderón-Macías, ION Geophysical (SPNA 1.6) [2]*

4 PM..... **Seismic exploration on ice: The flexural wave noise challenge**—G. Del Molino*, Eni E&P; D. Rovetta and P. Mazzucchelli, Aresys-PoliMi; S. Sandroni, F. Rizzo, and C. Andreoletti, Eni E&P (SPNA 1.7) [3]*

4:25 PM.... **Bayesian ground-roll separation by curvelet-domain sparsity promotion**—Carson Yarham and Felix J. Herrmann, U of British Columbia (SPNA 1.8) [3]*

4:50 PM.... **Seismic data analysis with one-dimensional seislet frame**—Sergey Fomel* and Yang Liu, U of Texas (SPNA 1.9) [4]*

TL 1 Case Studies

Session Chairmen: Philip A. Christie and Brackin A. Smith
Room: Lagoon B (Monday, 10 November)

1:30 PM.... **Use of descriptive statistics with repeatability data**—Jan H. Kommedal, BP Norway (TL 1.1) [3]*

1:55 PM.... **Time-lapse noise characterization by inversion**—Partha S. Routh and Phil D. Anno, ConocoPhillips (TL 1.2) [3]*

2:20 PM.... **First dual-vessel high-repeat GOM 4D shows development options at Holstein Field**—H. Ebaid*, A. Tura, M. Nasser, P. Hatchell, F. Smit, and N. Payne, Shell E&P; D. Herron, D. Stanley, J. Kaldy, and C. Barousse, BP Americas (TL 1.3) [2]*

2:45 PM.... **A Snorre Field case study demonstrating a 3D multidisciplinary time-lapse seismic project**—F. Aanvik*, R. Aurvåg, R. K. Tønnessen, R. Myklebust, G. V. Brustad, L. Lie, M. Andersen, and O. Lyse, StatoilHydro; L. Kollbotn, Iris (TL 1.4) [3]*

3:10 PM.... **The benefits of early 4D seismic monitoring to understand production-related effects at Enfield, Northwest Shelf, Australia**—M. Smith*, A. Gerhardt, B. Mee, T. Ridsdill-Smith, A. Wulff, and L. Bourdon, Woodside (TL 1.5) [3]*

Oral Sessions ➤Monday, 10 November (continued)

3:35 PM .... A reliable 4D seismic attribute for joint inversion of seismic and production data—Dhananjay Kumar* and Jorge L. Landa, Chevron Energy Technology (TL 1.6) [3]*

4 PM..... Apparent horizontal displacements in time-lapse seismic images—Dave Hale*, Colorado School of Mines; Barbara Cox and Paul Hatchell, Shell Int'l E&P (TL 1.7) [3]*

4:25 PM .... On the presence, and possible causes, of apparent lateral shifts below the Norne reservoir—Victor Aarre, WesternGeco (TL 1.8) [4]*

TOM 1 Migration Velocity Analysis and Refraction Tomography

Session Chairmen: Guy Purnell and Fuhao Qin
Room: Lagoon KL ..... *(Monday, 10 November)*

1:30 PM .... Speeding up RTM velocity model building beyond algorithmics—F. Ortigosa and Q. Liao, Repsol; A. Guitton, 3DGeo; W. Cai, Repsol (TOM 1.1) [5]*

1:55 PM .... First-break deformable-layer tomostatics constrained by shallow reflections—Hua-wei Zhou*, Hui Liu, and Fan Jiang, Texas Tech U; Peiming Li, BGP (TOM 1.2) [4]*

2:20 PM .... Refraction tomography mapping of near-surface dipping layers using landstreamer data—J. Ivanov* and R. D. Miller, Kansas Geological Survey; R. D. Markiewicz, U.S. Bureau of Reclamation; J. Xia, Kansas Geological Survey (TOM 1.3) [3]*

2:45 PM .... Sensitivity kernels and Fresnel volumes for transmitted waves—Yuzhu Liu* and Liangguo Dong, Tongji U (TOM 1.4) [4]*

3:10 PM .... 3D tomographic amplitude inversion for compensating amplitude attenuation in the overburden—K. Xen, B. Hung, S. Birdus, and J. Sun, CGGVeritas (TOM 1.5) [2]*

4 PM ..... Uncertainty and resolution analysis for anisotropic tomography using iterative eigendecomposition—K. Osypov*, D. Nichols, M. Woodward, O. Zdraveva, and C. E. Yarman, WesternGeco (TOM 1.7) [3]*

4:25 PM .... Velocity update for prestack time migration—G. Lambaré, J.-P. Touré, J. Le Moigne, S. Zimine, and P. Herrmann, CGGVeritas; S. Carbonara and F. Federici, Edison Milano (TOM 1.8) [4]*

4:50 PM .... The first-arrival tomographic inversion and its application to identify thick near-surface structures—Chen Baofu*, Xiong Dingyu, Ren Xiaoqiao, and Cheng Chunhua, BGP (TOM 1.9) [4]*

VSP 1 3DVSP, Acquisition, Processing, and Interpretation

Session Chairmen: Kyle T. Lewallen and Jorge L. Lopez
Room: Lagoon D ..... *(Monday, 10 November)*

1:30 PM .... 3D VSP acquisition and 3-C processing on a deep subsalt prospect in the Gulf of Mexico—J. Graves, S. Checkles, and J. Leveille, Hess; A. Campbell*, S. Leaney, and C. P. Deri, Schlumberger (VSP 1.1) [3]*

1:55 PM .... Preservation of high frequencies in wide-aperture 3D VSP data from the Middle East—A. Goertz, J. Andres Chavarria, B. Paulsson, and M. Karrenbach, Paulsson Geophysical Services; K. Müller, W. Soroka, S. Marmash, and M. Al-Baloushi, Abu Dhabi Co for Onshore Oil Operations (VSP 1.2) [3]*

2:20 PM .... AVO-VSP velocity analysis and 3-C, 3D VSP automatic wavefield separation—E. Blias, VSFusion (VSP 1.3) [4]*

2:45 PM .... Reverse time migration of P-wave and C-wave data from a 3D VSP over a deep subsalt prospect in the Gulf of Mexico—J. Leveille, S. Checkles*, and J. Graves, Hess; S. Randazzo, P. Farmer, J. Tinnin, and A. McGrail, ION GXT Imaging Solutions (VSP 1.4) [3]*

3:10 PM .... Acquisition, processing, and interpretation of a very large 3D VSP using new technologies: Risks, tradeoffs, and rewards—N. J. House, EnCana; B. Fuller, Sterling Seismic Services; D. Behrman and K. P. Allen, Amigos Energy Advisors (VSP 1.5) [3]*

3:35 PM .... VSP source-receiver consistent deconvolution—Dongjie Cheng*, Min Lou, and Fran Doherty, VSFusion (VSP 1.6) [4]*

4 PM..... Subsalt pore pressure prediction from spiral 3D VSP—J. E. Gumble*, M. L. Albertin, J. P. Blangy, D. A. Ebrom, R. A. Clarke, and S. Sugianto, BP America (VSP 1.7) [3]*

4:25 PM .... Analysis and interpretation of the largest U.S. onshore 3D VSP—Rosemarie Ramkhelawan*, Brian Hornby, Hans Sugianto, and John Younger, BP America (VSP 1.8) [1]*

4:50 PM .... Modeling in situ 4D seismic response for Otway Basin CO_2 sequestration project—A. Gendrin, L. Dahlhaus, S. Nakanishi, and S. Tcherkashnev, Schlumberger; P. Wisman, Curtin U; M. Urosevic, CO_2CRC and Curtin U (VSP 1.9) [3]*

NOTES:

ACQ 1 Equipment Methods and Models

Session Chairmen: Allan A. Ross and Marie Dunn
Room: Lagoon I (Tuesday, 11 November)

8:30 AM ... Wavenumber correction for the recording group effects in the seismic data—Ashwani Dev* and George A. McMechan, U of Texas (ACQ 1.1) [3]*

8:55 AM ... The correlation distance of incoherent seismic noise in geophone arrays—Ibrahim A. Alhukail*, Saudi Aramco; Abdulatif A. Al-Shuhail, King Fahd U of Petroleum and Minerals (ACQ 1.2) [3]*

9:20 AM ... A new method for highly repeatable time-lapse seismic acquisition—Dorit Koenitz* and Jaafar Ali, PGS; Peter Sabel, StatoilHydro (ACQ 1.3) [3]*

9:45 AM ... A field comparison of 3-C land streamer versus planted geophone data—Gabriela M. Suarez* and Robert R. Stewart, U of Calgary (ACQ 1.4) [2]*

10:10 AM . 2007 Arctic on-ice seismic experiment: Operations and results from a 2D/3D seismic program to investigate mitigation of the ice flexural wave—M. E. Davidson*, Shell E&P; P. R. Jorgensen, Shell Int'l E&P; R. L. Rosenbladt, Shell E&P; S. Sandroni, G. Del Molino, and S. Baudo, Eni E&P (ACQ 1.5) [3]*

10:35 AM . Numerical modeling of seismic acquisition footprint—Joanna K. Cooper*, Gary F. Margrave, and Don C. Lawton, U of Calgary (ACQ 1.6) [3]*

11 AM..... Elastic-wave sensitivity analysis for seismic monitoring—Huseyin Denli and Lianjie Huang, Los Alamos Nat'l Lab (ACQ 1.7) [2]*

11:25 AM.. A deep seismic reflection study of the great Sumatra earthquake using single-sensor technology—S. Singh* and H. Carton, IPG Paris; M. Bayly, WesternGeco; T. Bunting, WesternGeco (ACQ 1.8) [1]*

ANI 1 Advances

Session Chairmen: Heloise Lynn and David Gray
Room: Lagoon EF (Tuesday, 11 November)

8:30 AM ... P-wave azimuthal anisotropy from a full-wave seismic field trial in Wamsutter—Satish Sinha* and Rosemarie Ramkhelawan, BP America (ANI 1.1) [2]*

8:55 AM ... Azimuthal anisotropy characterization with multicomponent virtual shear sources at Rulison Field, Colorado—Prajnajyoti Mazumdar*, Colorado School of Mines; Albena Mateeva and Andrey Bakulin, Shell Int'l E&P (ANI 1.2) [4]*

9:20 AM ... Preserving azimuthal velocity information: Experiences with cross-spread noise attenuation and offset vector tile preSTM—A. Calvert*, E. Jenner, R. Jefferson, and R. Bloor, GXT Imaging; N. Adams and R. Ramkhelawan, BP America; C. St. Clair, VGS Seismic (ANI 1.3) [2]*

9:45 AM ... Using geomechanical modeling and wide-azimuth data to quantify stress effects and anisotropy near salt bodies in the Gulf of Mexico—Ran Bachrach and Mita Sengupta, WesternGeco (ANI 1.4) [3]*

10:10 AM . Estimating subsurface stress direction and intensity from surface full azimuth land data—H. Roende*, C. Meeder, J. Allen, S. Peterson, D. Eubanks, Marathon Oil; C. Ribeiro, CGGVeritas (ANI 1.5) [3]*

10:35 AM . The benefit of TTI tomography for dual azimuth data in the Gulf of Mexico—T. Huang*, S. Xu, J. Wang, G. Ionescu, CGGVeritas; M. Richardson, BHP Billiton (ANI 1.6) [3]*

11 AM..... STI media in practice, why and when to use it—Kaveh Dehghan*, Francois Audebert, and Johnni Cestari-Cuenca, Total (ANI 1.7) [3]*

11:25 AM.. Estimating lateral positioning uncertainty after anisotropic depth migration: A thrust belt case history—Rob A. Holt*, WesternGeco; Doug Campbell, Devon Canada (ANI 1.8) [2]*

BG 1 Resistivity and EM

Session Chairmen: Ali I. Mese and Michael A. Payne
Room: Reef C (Tuesday, 11 November)

8:30 AM ... On material averaging in electromagnetic simulation—Alexander Bespalov, Baker Hughes (BG 1.1) [3]*

8:55 AM .. Model study on through-casing time-domain electromagnetic (TEM) probing—W. Hu*, Z. Xu, L. Yan, and J. Wang, Yangtze U; K. S. and G. Yu, KMS Technologies (BG 1.2) [3]*

9:20 AM ... Sensitivity study and inversion of the fully triaxial induction logging in cross-bedded anisotropic formation—H. Wang* and S. Davydycheva, Schlumberger; J. Zhou, U of Houston; M. Frey, T. Barber, A. Abubakar, and T. Habashy, Schlumberger (BG 1.3) [4]*

9:45 AM ... Simulation of LWD tool response using a fast integral equation method—Xiaochun Nie*, Ning Yuan, and Richard Liu, U of Houston (BG 1.4) [3]*

10:10 AM . Comparing tool eccentricity effects on LWD propagation resistivity for oil-based and water-based muds—Jing Li, PathFinder Energy Services (BG 1.5) [3]*

10:35 AM . Practical implications of nonlinear inversion for crosswell electromagnetic data collected in cased wells—G. Gao*, D. Alumbaugh, P. Zhang, H. Zhang, C. Levesque, R. Rosthal, J. Liu, A. Abubakar, and T. Habashy, Schlumberger (BG 1.6) [4]*

11 AM..... Nonlinear inversion approaches for crosswell electromagnetic data collected in cased wells—J. Liu*, A. Abubakar, T. M. Habashy, D. Alumbaugh, E. Nichols, and G. Gao, Schlumberger (BG 1.7) [4]*

11:25 AM.. Modeling and understanding the triaxial induction logging in borehole environment with dip anisotropic formation—H. Wang*, P. Wu, R. Rosthal, G. Minerbo, and T. Barber, Schlumberger (BG 1.8) [5]*

EM 1 Modeling and Inversion I

Session Chairmen: Douglas Oldenburg and Kurt M. Strack
Room: Lagoon J (Tuesday, 11 November)

8:30 AM ... Forward modeling and inversion of multisource TEM data—D. W. Oldenburg*, U of British Columbia; E. Haber, Emory U; R. Shekhtman, UBC (EM 1.1) [3]*

8:55 AM ... Three-dimensional forward modeling and inversion of Z-TEM data—Elliot Holtham* and Douglas W. Oldenburg, U of British Columbia (EM 1.2) [4]*

9:20 AM ... Estimation of Cole-Cole parameters from time-domain electromagnetic data—Laurens Beran and Douglas Oldenburg, U of British Columbia (EM 1.3) [3]*

9:45 AM ... Resolution of 3D marine magnetotellurics for base-salt imaging and a case study from the Gulf of Mexico—Xianghong Wu*, Stewart Sandberg, and Tom Roper, WesternGeco (EM 1.4) [2]*

10:10 AM . Iterative reconstruction algorithm for nonlinear operators—Robert A. Eso*, Scott Napier, Felix J. Herrmann, and Douglas W. Oldenburg, U of British Columbia (EM 1.5) [4]*

10:35 AM . A three-dimensional multiplicative-regularized nonlinear inversion algorithm for crosswell electromagnetic and controlled-source electromagnetic application—A. Abubakar*, J. Liu, T. Habashy, M. Zaslavsky, and V. Druskin, Schlumberger-Doll Research (EM 1.6) [3]*

11 AM..... Large-scale electromagnetic modeling for multiple inhomogeneous domains—Masashi Endo*, Martin Cuma, and Michael S. Zhdanov, U of Utah (EM 1.7) [4]*

11:25 AM.. Fast 3D simulation of transient electromagnetic fields by model reduction in the frequency domain using Krylov subspace projection—Ralph–Uwe Börner, Oliver G. Ernst, and Klaus Spitzer, Technische U Bergakademie Freiberg (EM 1.8) [5]*

GM 1 4D Gravity, Borehole and Interpretation

Session Chairmen: Steve C. Kenyon and Chuck Campbell
Room: Lagoon D ..... *(Tuesday, 11 November)*

8:30 AM ... Borehole magnetics: Magnetostratigraphy–An example from UNAM-7, Chicxulub Impact Crater—William A. Morris* and Hernan Ugalde, McMaster U; Bernd Milkereit, U of Toronto (GM 1.1) [3]*

8:55 AM ... Monitoring water front advancements with downhole gravity sensors—Thomas J. Meyer, Lockheed Martin (GM 1.2) [3]*

9:20 AM ... Joint inversion of surface and borehole 4D gravity data for continuous characterization of fluid contact movement—Richard A. Krahenbuhl*, and Yaoguo Li, Colorado School of Mines (GM 1.3) [4]*

9:45 AM ... Survey design and model appraisal based on resolution analysis for 4D gravity monitoring—Kristofer Davis*, M. Andy Kass, Rich A. Krahenbuhl, and Yaoguo Li, Colorado School of Mines (GM 1.4) [4]*

10:10 AM... Use of enhancement filters in modeling magnetic field data—Clive Foss, Encom Technology (GM 1.5) [3]*

10:35 AM... Spatial domain filtering of specific frequencies: Curvature isolation of potential field signals—Madeline Lee*, Hernan Ugalde, and Bill Morris, McMaster U (GM 1.6) [3]*

11 AM..... Adaptive learning gravity inversion for 3D salt body imaging—Fernando J. S. Silva Dias and Valéria C. F. Barbosa*, Observatorio Nacional-Rio de Janeiro; João B. C. Silva, U Federal do Pará (GM 1.7) [4]*

11:25 AM.. Focusing inversion of marine full-tensor gradiometry data in offshore geophysical exploration—Le Wan* and Michael S. Zhdanov, U of Utah (GM 1.8) [3]*

RC 2 Meaningful Attributes and their Application

Session Chairmen: Gautam Sen and Marian C. Hanna
Room: Lagoon H ..... *(Tuesday, 11 November)*

8:30 AM ... Using seismic attributes to detect vertical fractures: A physical model study—R. W. Wiley*, Apex Spectral Technology; B. C. Golden, Halliburton; P. H. Wilson and S. W. Peters, Apex (RC 2.1) [2]*

8:55 AM ... Gleaning meaningful information from seismic attributes—Satinder Chopra, Arcis; Kurt J. Marfurt, U of Oklahoma (RC 2.2) [3]*

9:20 AM ... The effects of seismic data conditioning on prestack simultaneous impedance inversion—Scott Singleton, Rock Solid Images (RC 2.3) [3]*

9:45 AM ... Evaluation of fracture parameters and fluid content from seismic and well data—Noalwenn Dubos-Sallée* and Patrick N. J. Rasolofosaon, IFP (RC 2.4) [3]*

10:10 AM . Brazilian deep-water carbonate reservoir study using the wavelet transform Teager-Kaiser energy—Marcílio Castro de Matos* and Kurt J. Marfurt, U of Oklahoma; Paulo Johann and Joao Adolfo Rosseto, Petrobras (RC 2.5) [3]*

10:35 AM . Use of spatial, frequency, and curvature attributes for reservoir, fluid, and contact predictions—W. Flierman, J. Gabe van der Weide, and A. Wever, Wintershall Noordzee; F. Brouwer and A. Huck, dGB Earth Sciences (RC 2.6) [3]*

11 AM..... Elastic impedance coefficient (EC) for lithology discrimination and gas detection—Hong Cao*, Zhifang Yang, and Yonggen Li, PetroChina (RC 2.7) [5]*

11:25 AM... Pitfalls and tips for seismic fracture analysis—Ye Zheng*, Juefu Wang, and Mike Perz, Divestco (RC 2.8) [4]*

RP 1 Core to Field Scale Measurements and Models for Shales and Sands

Session Chairmen: Ali I. Mese and Ivar Brevik
Room: Lagoon C ..... *(Tuesday, 11 November)*

8:30 AM .. Elastic properties of clay minerals—A. Pal-Bathija*, M. Prasad, H. Liang, M. Upmanyu, N. Lu, and M. Batzle, Colorado School of Mines (RP 1.1) [3]*

8:55 AM..... Clay-water interaction, intermolecular forces, and acoustic velocity—Ali I. Mese, Schlumberger (RP 1.2) [3]*

9:20 AM ... Effective stress coefficient for North Sea shale: An experimental study—Rituparna Sarker* and Mike Batzle, Colorado School of Mines (RP 1.3) [3]*

9:45 AM ... Influence of horizontal and vertical stresses on V_P-V_S trends—A. Bakulin*, F. Kets, M. Hauser, R. Vines, and J. Wieseneck, Shell Int'l E&P (RP 1.4) [3]*

10:10 AM . Stress and pore-pressure dependence of sound velocities in shales: Poroelastic effects in time-lapse seismic—A. Bauer*, C. Lehr, F. Korndorffer, A. van der Linden, J. Dudley, T. Addis, K. Love, and M. Myers, Shell Int'l E&P (RP 1.5) [2]*

10:35 AM . Elastic anisotropy, maturity, and maceral microstructure in organic-rich shales—Tiziana Vanorio*, Tapan Mukerji, and Gary Mavko, Stanford U (RP 1.6) [4]*

11 AM..... Experimental investigation of ultrasonic cleaning of drilling and drill-in fluids damage in Berea sandstone cores—Azra N. Tutuncu*, Shell E&P; Ali I. Mese, Schlumberger (RP 1.7) [2]*

11:25 AM.. Electrokinetic effect: Theory and measurement—F. C. Schoemaker, D. M. J. Smeulders, and E. C. Slob, Delft U (RP 1.8) [2]*

SPMI 1 Frontiers

Session Chairmen: Paul J. Fowler and Norman D. Whitmore
Room: Lagoon KL (Tuesday, 11 November)

8:30 AM ... Separation, imaging, and velocity analysis of seismic diffractions using migrated dip-angle gathers—Evgeny Landa, Opera; Sergey Fomel, U of Texas; Moshe Reshef, Tel Aviv U (SPMI 1.1) [2]*

8:55 AM ... Imaging by target-oriented wave-equation inversion: 3D field data results—Alejandro A. Valenciano*, Biondo L. Biondi, and Robert G. Clapp, Stanford U (SPMI 1.2) [2]*

9:20 AM ... Acoustic VTI wave equations and their application for anisotropic reverse-time migration—Eric Duveneck, Paul Milcik, and Peter M. Bakker, Shell Int'l E&P; Colin Perkins, Shell E&P (SPMI 1.3) [3]*

9:45 AM ... Elastic wavefield separation for VTI media—Jia Yan* and Paul Sava, Colorado School of Mines (SPMI 1.4) [4]*

10:10 AM . Reverse time migration in 3D heterogeneous TTI media—Houzhu (James) Zhang and Yu Zhang, CGGVeritas (SPMI 1.5) [2]*

10:35 AM . Wave-equation Hessian by phase encoding—Yaxun Tang, Stanford U (SPMI 1.6) [3]*

11 AM..... Efficient compensation for attenuation effects using pseudo Q migration—Lorie Bear*, Jonathan Liu, and Peter Traynin, ExxonMobil Upstream Research (SPMI 1.7) [2]*

11:25 AM.. Curvelet-based migration preconditioning—Peyman P. Moghaddam, Cody Brown, and Felix J. Herrmann, U of British Columbia (SPMI 1.8) [3]*

SPMUL 1 Surface Multiple Prediction and Subtraction

Session Chairmen: Dechun Lin and Anatoly Baumstein
Room: Lagoon A (Tuesday, 11 November)

8:30 AM ... Interpolation of near offsets with multiples and prediction-error filters—William Curry* and Guojian Shan, Stanford U (SPMUL 1.1) [3]*

8:55 AM ... 3D general surface multiple prediction: An algorithm for all surveys—B. Dragoset*, WesternGeco; I. Moore, Schlumberger Cambridge Research; M. Yu and W. Zhao, WesternGeco (SPMUL 1.2) [2]*

9:20 AM..... True-azimuth versus zero-azimuth 3D multiple prediction in WATS processing—P. Aaron*, R. O'Toole, S. Barnes, R. Hegge, and R. van Borselen, PGS (SPMUL 1.3) [3]*

9:45 AM ... Application of true-azimuth 3D SRME in the Northwest Shelf, Australia—Richard Bisley*, WesternGeco; Malcolm MacNeill, Woodside Energy (SPMUL 1.4) [3]*

10:10 AM . Multiple prediction by wavefield extrapolation in common-P domain—B. Wang, Y. Kim, H. Guan, S. Sen, M. Guo, and K. Yoon, TGS (SPMUL 1.5) [3]*

10:35 AM... Shallow water 3D surface-related multiple modeling, case study—P. Plasterie, M. Gayne, M. Lange, I. Sarjono, A. Pica, S. Leroy, and G. Poulain, CGGVeritas; R. Bril, C. Faulkner, and C. Mosher, Conoco-Phillips (SPMUL 1.6) [3]*

11 AM..... A new multiple subtraction method using the attributes of predicted multiples—M. Guo*, Y. Kim, S. Sen, J. Xu, J. Xie, and B. Wang, TGS-Nopec (SPMUL 1.7) [3]*

11:25 AM.. LS-DIP: An adaptive dip-based subtraction of predicted multiples—D. Donno*, F. Rocca, S. Costagliola, Politecnico di Milano; P. Mazzucchelli, Aresys–Polimi; E. Loinger, Eni E&P (SPMUL 1.8) [3]*

TL 2 Land, CO_2, and New Developments

Session Chairmen: John Brittan and Martin Terrell
Room: Lagoon B (Tuesday, 11 November)

8:30 AM ... Tight gas sandstone seismic monitoring, Rulison Field, Colorado—Thomas L. Davis* and Robert D. Benson, Colorado School of Mines (TL 2.1) [3]*

8:55 AM ... Thief zone identification through seismic monitoring of a CO_2 flood, Weyburn Field, Saskatchewan—Alexandre W. Araman*, Matthew Hoffman, and Thomas L. Davis, Colorado School of Mines (TL 2.2) [2]*

9:20 AM ... Numerical modeling of time-lapse monitoring of CO2 sequestration in a layered basalt reservoir—Murari Khatiwada*, Kasper van Wijk, and William P. Clement, Boise State U; Matt Haney, USGS Alaska Volcano Observatory (TL 2.3) [2]*

9:45 AM ... Ultrasonic experiments for time-lapse monitoring of CO2 sequestration—D. Sijacic*, K.H.A.A. Wolf, and J. Spetzler, Delft U (TL 2.4) [2]*

10:10 AM . Using the coda-wave interferometry method and time-lapse VSP data to estimate velocity changes from geological carbon sequestration in a brine aquifer—R. Zhou*, L. Huang, and J. Rutledge, Los Alamos Nat'l Lab; T. M. Daley and E. L. Majer, Lawrence Berkeley Nat'l Lab (TL 2.5) [3]*

10:35 AM . Imaging and monitoring with virtual sources on a synthetic 3D data set from the Middle East—Valeri Korneev*, Lawrence Berkeley Nat'l Lab; Andrey Bakulin and Jorge Lopez, Shell Int'l E&P (TL 2.6) [2]*

11 AM..... The impact of subseismic shale layers on the reservoir's stress sensitivity—Colin MacBeth*, Karl Stephen, and Andy Gardiner, Heriot-Watt U (TL 2.7) [3]*

11:25 AM.. The combination of wavelet transform and nonlinear filtering for time-lapse seismic difference analysis—Long Jin*, U of Texas; Xiaohong Chen, China U of Petroleum (TL 2.8) [3]*

EM 2 Modeling and Inversion II

Session Chairmen: Steven Constable and David Alumbaugh
Room: Lagoon J (Tuesday, 11 November)

1:30 PM .... Probabilistic joint inversion of TD-CSEM, MT and DC data for hydrocarbon exploration—D. Rovetta*, Politecnico di Milano-Aresys, A. Lovatini and M. D. Watts, WesternGeco (EM 2.1) [4]*

1:55 PM .... CSEM inversion: Impact of anisotropy, data coverage, and initial models—Charlie Jing*, Ken Green, and Dennis Willen, ExxonMobil Upstream Research (EM 2.2) [4]*

Oral Sessions ➤ Tuesday, 11 November (continued)

2:20 PM .... Optimal conductivity reconstruction using three-dimensional joint and model-based inversion for controlled-source and magnetotelluric data—Michael Commer* and Gregory A. Newman, Lawrence Berkeley Nat'l Lab (EM 2.3) [3]*

2:45 PM .... 3D inversion of marine CSEM data using a fast finite-difference time-domain forward code and approximate Hessian-based optimization—J. J. Zach, A. K. Bjørke, T. Støren, F. Maaø, EMGS (EM 2.4) [4]*

3:10 PM .... Inversion of 3D time-domain EM data for high conductivity contrasts—Greg A. Oldenborger* (now at Geological Survey of Canada) and Douglas W. Oldenburg, U of British Columbia (EM 2.5) [3]*

3:35 PM .... Using the equivalent source technique to estimate noise in 4D TEM data—Kristopher MacLennan* and Yaoguo Li, Colorado School of Mines (EM 2.6) [3]*

4 PM ..... Three-dimensional electromagnetic holographic imaging in offshore petroleum exploration—Michael S. Zhdanov and Martin Cuma*, U of Utah; Takumi Ueda, Geological Survey of Japan (EM 2.7) [3]*

4:25 PM .... Array TEM sounding and application for reservoir monitoring—W. Hu*, L. Yan, Z. Su, and R. Zheng, Yangtze U; K. Strack, KMS Technologies (EM 2.8) [3]*

4:50 PM .... 1D, 2D, and 3D modeling and inversion of 3D CSEM data offshore West Africa—A. Price*, P. Turpin, and M. Erbetta, Total E&P; D. Watts and G. Cairns, WesternGeco (EM 2.9) [4]*

GM 2 Global Models and Interpretation

Session Chairmen: Neda Bundalo and E. K. Biegert
Room: Lagoon D ..... *(Tuesday, 11 November)*

1:30 PM .... The DNSC07 high-resolution global marine gravity field—O. B. Andersen* and P. Knudsen, Danish Nat'l Space Center; P. A. M. Berry, De Montfort U; S. Kenyon and N. Pavlis, Nat'l Geospatial-Intelligence Agency (GM 2.1) [3]*

1:55 PM .... Earth gravitational model 2008—N. Pavlis, S. Kenyon*, J. Factor, Nat'l Geospatial-Intelligence Agency; S. Holmes, Stinger Ghaffarian Technologies (GM 2.2) [3]*

2:20 PM .... EMAG3: A 3-arc-minute resolution global magnetic anomaly grid compiled from satellite, airborne, and marine magnetic data—S. Maus, NOAA and U of Colorado; J. D. Fairhead, Getech; S. Mogren, King Saud U; R. N. Bournas, Geotech (GM 2.3) [1]*

2:45 PM .... Origin and enhancement of gravity and magnetic signatures of the continental-oceanic boundary: examples from West Africa Passive Margin—S. Goussev* and G. Shields, Fugro Robertson; J. Rowe, Fugro; Afif Saad, Saad Consulting (GM 2.4) [4]*

3:10 PM .... Gravity, magnetic, and seismic data integration for structural configuration and its hydrocarbon evaluation in the San Juan-Tumaco Basins, offshore Colombia—Mukesh Jain* and S. N. Mohanty, Reliance; S. V. Yalamanchili, Fugro Robertson (GM 2.5) [3]*

3:35 PM .... Magnetic interpretation made easy: The Tilt-Depth-Dip-*ΔK* method—J. D. Fairhead*, U of Leeds and Getech; A. Salem and S. Williams, Getech; E. Samson, U of Leeds (GM 2.6) [3]*

4 PM ..... The effect of topography in calculating the atmospheric correction in gravimetry—J. Mikuška* and I. Marušiak, G-trend; R. Pašteka, R. Karcol, and J. Beno, Comenius U (GM 2.7) [3]*

4:25 PM .... 3D magnetic data-space inversion with sparseness constraints—Mark Pilkington, Geological Survey of Canada (GM 2.8) [3]*

4:50 PM .... Cluster analysis of Euler deconvolution solutions: New filtering techniques and actual link to geological structure—Hernan Ugalde* and Bill Morris, McMaster U (GM 2.9) [3]*

INT 1 Integrated Studies

Session Chairmen: Thomas L. Davis and Hongliu Zeng
Room: Lagoon H ..... *(Tuesday, 11 November)*

1:30 PM ..... Vent complex at Heidrun—P. Garten* and M. Houbiers, StatoilHydro; S. Planke, Volcanic Basin Petroleum Research and U of Oslo; H. Svensen, U of Oslo (INT 1.1) [3]*

1:55 PM .... Integrated geophysical inversion of a sedimentary basement in northern deep-water areas of the China South Sea—Fan Jiang* and Jiansheng Wu, Tongji U (INT 1.2) [4]*

2:20 PM .... Reinterpretation of VES data (Saiss Basin, Morocco) using geostatistics and 2D electrical inversion methods—J. Riss, Bordeaux U; J.-L. Fernández Martínez*, U of California; C. Sirieix, O. Harmouzi, and A. Marache, Bordeaux U; A. Essahlaoui, Meknes U (INT 1.3) [3]*

2:45 PM ..... Attribute-aided interpretation of common angle volumes—Sean Lewis, U of Houston (INT 1.4) [2]*

3:10 PM .... Uncertainty reduction in reservoir modeling by joint inversion of seismic and geostatistics—Matthew S. Casey, Colorado School of Mines (INT 1.5) [2]*

3:35 PM .... How thin is a thin bed? An alternative perspective—Hongliu Zeng*, John A. Jackson, and Katherine G. Jackson, U of Texas (INT 1.6) [3]*

4 PM ..... Seismic attributes and gravity and magnetic transformations: The same mathematics under different names for different geophysical data sets—Xiong Li, Fugro Robertson (INT 1.7) [3]*

4:25 PM .... New structural mapping of basement features in the Fort Worth Basin, Texas, using high-resolution aeromagnetic derivatives and Euler depth estimates—Olubunmi O. Elebiju*, G. Randy Keller, and Kurt J. Marfurt, U of Oklahoma (INT 1.8) [2]*

MAZ 1 Case Studies and Methods

Session Chairmen: Charles J. Sicking and Simon A. Shaw
Room: Lagoon EF ..... *(Tuesday, 11 November)*

1:30 PM .... Analysis of walkaround VSP azimuthal response using borehole images—J. Jocker*, R. Prioul, P. Montaggioni, and M. Idrees, Schlumberger; E. Loubens and L. Escaré, Gaz de France (MAZ 1.1) [3]*

1:55 PM ..... Wide-azimuth techniques for processing high density 3D OBC data—J.-L. Boelle, Total E&P; P. Hugonnet and S. Navion, CGGVeritas; A. Soudani and F. Adler, Total E&P; J. Bluteau, Total E&P and CGGVeritas (MAZ 1.2) [1]*

2:20 PM.... **Five-dimensional seismic data interpolation**—Daniel Trad, CGGVeritas (MAZ 1.3) [3]*

2:45 PM.... **Azimuthal attribute methodologies: Comparison of NMO supergathers, sectored isotropic migration, iterative azimuthal migration**—Charles Sicking* and Stu Nelan, Weinman GeoScience (MAZ 1.4) [3]*

3:10 PM.... **Azimuthal processing for fracture prediction and image improvement**—Galen Treadgold*, Charles Sicking, Victoria Sublette, and Gary Hoover, Weinman GeoScience (MAZ 1.5) [3]*

3:35 PM.... **Constructing an anisotropic velocity model for ocean bottom seismic node data**—Alexandre Stopin*, Mark Mc Rae, Laura Lepre, and Brenda Gaudin, Shell E&P (MAZ 1.6) [3]*

4 PM..... **Seismic data acquisition using ocean bottom seismic nodes at the Deimos Field, Gulf of Mexico**—Frans Smit*, Colin Perkins and Laura Lepre, Shell E&P; Ken Craft and Reagan Woodard, Fairfield Industries (MAZ 1.7) [3]*

4:25 PM.... **Impact of feathering on imaging for wide-azimuth data**—Laurent Sirgue* and Ganyuan Xia, BP America (MAZ 1.8) [3]*

4:50 PM.... **An exploration-scale wide-azimuth towed-streamer case study**—Eivind Fromyr*, Peter Wijnen, Roald van Borselen, Peter Aaron, and Lynn Comeaux, PGS (MAZ 1.9) [2]*

MC 2 Processing

Session Chairmen: Jason E. Gumble and Paul E. Murray
Room: Lagoon C (Tuesday, 11 November)

1:30 PM.... **Ground roll polarization filtering with spatial smoothness constraints**—Kristof De Meersman, CGGVeritas (MC 2.1) [3]*

1:55 PM.... **Constrained polarization filtering for surface-wave mitigation**—M. S. Diallo*, W. S. Ross, C. E. Krohn, M. L. Johnson, G. C. Szurek, and A. P. Shatilo, ExxonMobil Upstream Research (MC 2.2) [3]*

2:20 PM.... **Constrained surface wave inversion from 9-component seismic reflection data**—Carlos Calderón-Macías* and Jim Simmons, ION GXT Imaging (MC 2.3) [3]*

2:45 PM.... **Salt dome flank imaging with elastodynamic interferometric redatuming**—R. Lu*, ExxonMobil (formerly at MIT); M. E. Willis, MIT; X. Campman, Shell; M. N. Toksöz, MIT (MC 2.4) [2]*

3:10 PM.... **Elastic interferometry for OBC data: Theory and examples**—J. E. Gaiser*, I. Vasconcelos, and C. Calderón-Macias, GXT Imaging (MC 2.5) [2]*

3:35 PM.... **Space-frequency domain processing of irregular dual-sensor towed streamer data**—Walter Söllner*, Anthony Day, and Hocine Tabti, PGS (MC 2.6) [3]*

4 PM..... **Wavefield separation for dual-sensor data with local handling of aliased energy**—Tilman Klüver, PGS (MC 2.7) [3]*

4:25 PM.... **PZ calibration in shallow waters: The Britannia OBS example**—Yi Wang* and Sergio Grion, CGGVeritas (MC 2.8) [3]*

NSE 1 GPR, EM, Electrical, & Seismic for Water

Session Chairmen: R. W. Groom and Ben Sternberg
Room: Reef C (Tuesday, 11 November)

1:30 PM.... **Coherency attribute algorithm for polarimetric ground penetrating radar (GPR)**—Douglas S. Sassen, Texas A&M U (NSE 1.1) [3]*

1:55 PM.... **An inverse scattering framework for direct multiparameter georadar inversion**—K. A. Innanen, U of Houston; P. S. Routh, Conoco-Phillips (NSE 1.2) [4]*

2:20 PM.... **Closed loop hydrogeophysical inversion of time-lapse GPR data to determine hydraulic properties of a sandy soil**—E. Slob, Delft U; S. Lambot, U Catholique de Louvain; J. Rhebergen, TNO Defence, Security and Safety; O. Lopera, Royal Military Academy; H. Vereecken, Research Centre Jülich (NSE 1.3) [3]*

2:45 PM.... **Inversion of TE and TM dispersive GPR data for properties of a layered waveguide**—Jan van der Kruk*, ETH Zürich; Robert W. Jacob, Brown U (NSE 1.4) [3]*

3:10 PM.... **Quasi 3D inversion of electromagnetic data**—E. Auken*, A. V. Christiansen, and A. Viezzoli, U of Aarhus; B. Simon, Bundesanstalt für Geowissenschaften und Rohstoffe (NSE 1.5) [4]*

3:35 PM.... **Characterization of fracture system of a shale aquifer using azimuthal resistivity survey: A case history from CAS campus, Ebonyi State University, Nigeria**—A. U. Utom, B. I. Odoh, and F. Ogala, Ebonyi State U (NSE 1.6) [2]*

4 PM..... **Estimation of water table from self-potential data using particle swarm optimization (PSO)**—V. Naudet, U Bordeaux; J. L. Fernández- Martínez*, U of California; E. García-Gonzalo and J. P. Fernández-Álvarez, U de Oviedo (NSE 1.7) [4]*

4:25 PM.... **High-resolution seismic reflection to image hydrogeologic sequences**—Richard D. Miller* and Jianghai Xia, Kansas Geological Survey (NSE 1.8) [4]*

4:50 PM.... **Characterization of a fractured bedrock groundwater system for environmental remediation using borehole geophysics and 3D seismic data**—Robert Will*, Peter Kaufman, Tim Parker, and Dieter Hiller, Schlumberger (NSE 1.9) [3]*

RC 3 Modeling, Monitoring, and Dispersion

Session Chairmen: Bruce Hart and Pratt Barndollar
Room: Lagoon I (Tuesday, 11 November)

1:30 PM.... **Improvements in reservoir modeling of compressional structures**—Karen S. Hoffman, John W. Neave, and Erik H. Nilsen, Roxar (RC 3.1) [3]*

1:55 PM.... **Correlated fracture network modeling using simulated annealing**—Ravi Shekhar* and Richard L. Gibson Jr., Texas A&M U (RC 3.2) [2]*

2:20 PM..... **Reconstruction of channelized facies using sparsity constraints**—Behnam Jafarpour*, Texas A&M; Vivek K.Goyal and William T. Freeman, MIT (RC 3.3) [2]*

2:45 PM.... **Multiple prediction and reservoir characterization of a tight sand reservoir**—B. Zhao*, ExxonMobil (formerly at dGB); F. Brouwer and F. Aminzadeh, dGB; S. Morris and R. Harris, Anadarko Petroleum (RC 3.4) [3]*

Oral Sessions ➤ Tuesday, 11 November (continued)

3:10 PM .... The Wolf Ramp: Early work on reflectivity dispersion—Christopher L. Liner*, Bernhard Bodman, and Gennady Goloshubin, U of Houston (RC 3.5) [4]*

3:35 PM .... Time-lapse V_P-V_S analysis for pressure mapping, Rulison Field, Colorado—Ramses G. Meza* and Tom L. Davis, Colorado School of Mines; Reinaldo J. Michelena, iReservoir (RC 3.6) [4]*

4 PM ..... Hydraulic fracture quality from time-lapse VSP and microseismic data—M. E. Willis*, D. R. Burns, and K. M. Willis, MIT; N. J. House, EnCana; J. Shemeta, Pinnacle (RC 3.7) [2]*

4:25 PM ... Closer to real earth in reservoir characterization: A 3D isotropic/anisotropic PSDM simulator—Isabelle Lecomte* and Tina Kaschwich, Norsar (RC 3.8) [3]*

SM 1 Numerical Modeling of Seismic Wave Propagation using Discrete Methods

Session Chairmen: Tetyana Vdovina and Thomas A. Dickens
Room: Lagoon B ..... *(Tuesday, 11 November)*

1:30 PM .... Numerical solution of the constant density acoustic wave equation by implicit spatial derivative operators—Dan Kosloff*, Tel-Aviv U and Paradigm; Reynam Pestana, Federal U of Bahia; Hillel Tal-Ezer, Academic College Tel-Aviv Yaffo (SM 1.1) [5]*

1:55 PM ..... Finite-difference simulation of elastic waves propagation in multiscale media on the base of local grid refinement—J. Guilbot, Total E&P; V. G. Khaidukov, Inst of Petroleum Geology and Geophysics; E. Landa, Opera; G. V. Reshetova*, Inst of Computational Mathematics and Mathematical Geophysics; V. A. Tcheverda, Inst of Petroleum Geology and Geophysics (SM 1.2) [2]*

2:20 PM ..... A mimetic finite-difference method for acoustic-wave modeling on arbitrary meshes—Konstantin Lipnikov* and Lianjie Huang, Los Alamos Nat'l Lab (SM 1.3) [1]*

2:45 PM ..... Grid dispersion of the discontinuous Galerkin method for elastic wave propagation—Jonás D. De Basabe*, Mrinal K. Sen, and Mary F. Wheeler, U of Texas (SM 1.4) [3]*

3:10 PM .... Gridding requirements for accurate finite difference simulation—William W. Symes*, Igor S. Terentyev, and Tetyana W. Vdovina, Rice U (SM 1.5) [3]*

3:35 PM .... A new pseudoacoustic wave equation for TI media—Robin Fletcher, Xiang Du, and Paul J. Fowler, WesternGeco (SM 1.6) [4]*

4 PM ..... A pseudospectral-finite difference hybrid approach for large-scale seismic modeling and RTM on parallel computers—Chunlei Chu* and Paul L. Stoffa, U of Texas (SM 1.7) [3]*

4:25 PM .... Finite difference modeling of elastic wave propagation on curvilinear grid: A generalized rotated operator approach—Marwan Charara*, Artyom Myasnikov, and Denis Sabitov, Schlumberger Moscow Research (SM 1.8) [3]*

SPMUL 2 Internal Multiples and Novel Approaches

Session Chairmen: Dirk J. Verschuur and Bill Dragoset
Room: Lagoon A ..... *(Tuesday, 11 November)*

1:30 PM .... Subsalt imaging with internal multiples—Alison E. Malcolm*, MIT; Bjørn Ursin, Norwegian U of Science and Technology; Maarten V. de Hoop, Purdue U (SPMUL 2.1) [3]*

1:55 PM ..... An upside-down approach to efficient surface-related and interbed multiple prediction—Anatoly Baumstein, ExxonMobil Upstream Research (SPMUL 2.2) [3]*

2:20 PM .... Inverse scattering internal multiple elimination: Leading-order and higher-order closed forms—Adriana Citlali Ramírez* and Arthur B. Weglein, U of Houston (SPMUL 2.3) [3]*

2:45 PM .... Wave equation based internal multiple modeling in 3D—Antonio Pica* and Laurie Delmas, CGGVeritas (SPMUL 2.4) [2]*

3:10 PM .... The underlying unity of distinct processing algorithms for (1) the removal of free surface and internal multiples, (2) Q compensation (without Q), (3) depth imaging, and (4) nonlinear AVO, that derive from the inverse scattering series—A. B. Weglein, A. C. Ramírez (now at Western-Geco), K. A. Innanen, F. Liu, J. E. Lira, and S. Jiang, U of Houston (SPMUL 2.5) [3]*

3:35 PM .... Toward a new approach for primary estimation—G. J. A. van Groenestijn* and D. J. Verschuur, Delft U (SPMUL 2.6) [2]*

4 PM ..... High resolution 3D parabolic Radon filtering—Pierre Hugonnet*, CGGVeritas; Jean-Luc Boelle, Total E&P; Majda Mihoub, CGGVeritas (SPMUL 2.7) [4]*

4:25 PM .... Seismic wavefield inversion with curvelet-domain sparsity promotion—Felix J. Herrmann, U of British Columbia; Deli Wang, Jilin U (SPMUL 2.8) [3]*

TOM 2 Migration Velocity Analysis

Session Chairmen: Frederic J. Billette and Mark Chang
Room: Lagoon KL ..... *(Tuesday, 11 November)*

1:30 PM .... True geometry tomography for velocity model building with applications to WATS seismic data—C. Zhou, J. Ramos-Martínez, S. Lin, J. Jiao, and S. Brandsberg-Dahl, PGS (TOM 2.1) [3]*

1:55 PM .... Subsalt velocity update using RTM-based DT scan—B. Wang, Chuck M., M. Guo, H. Guan, K. Yoon, and Z. Li, TGS (TOM 2.2) [3]*

2:20 PM .... Fast velocity model building by plane-wave migration in tilted coordinates, automated volume-based picking, and tomography—A. Guitton* and M. Fliedner, 3DGeo; B. Biondi, Stanford U; F. Ortigosa, Repsol (TOM 2.3) [3]*

2:45 PM .... Wave-like rays in traveltime tomography—J. K. Washbourne*, Chevron Energy Technology; K. P. Bube, U of Washington; P. L. Carrillo, and C. M. Addington, Z-Seis (TOM 2.4) [3]*

3:10 PM .... Optimized design of frequency-domain acoustic waveform tomography experiments—Hansruedi Maurer and Stewart A. Greenhalgh, ETH Zürich (TOM 2.5) [2]*

Oral Sessions ➤*Tuesday, 11 November (continued)*

3:35 PM .... Resolving near-seabed velocity anomalies: Deep water offshore southeast India—J. Fruehn, I. F. Jones*, and V. Valler, ION GX Technology; P. Sangvai, A. Biswal, and M. Mathur, Reliance Industries (TOM 2.6) [4]*

4 PM ..... Seismic depth processing using the CRS technique - A 3D land data example from Mexico—S. Frehers*, J. Pruessmann, and G. Gierse, TEEC; R. Ballesteros and A. Caballero, Geoprocesados; G. Clemente, Pemex (TOM 2.7) [4]*

4:25 PM ..... Multidomain and multiscale tomography for precise reservoir imaging—B. Duquet*, L. Lemaistre, Y. Le Stunff, S. Gancarski, and J . C. Camez, Total (TOM 2.8) [3]*

NOTES:

Oral Sessions ➤*Wednesday, 12 November*

ACQ 2 Marine

Session Chairmen: Chuck A. Barousse and Chuck Meeder
Room: Lagoon I ..... *(Wednesday, 12 November)*

8:30 AM ... Where is the center of a multidepth marine source array?—Jon-Fredrik Hopperstad*, Robert Laws, and Ed Kragh, Schlumberger Cambridge Research (ACQ 2.1) [2]*

8:55 AM ... Building representative velocity and density models for a finite-difference modeling study in offshore Nile Delta, Egypt—N. Kabir, C. Scherschel, and E. L'Heureux, BP America; G. Johnson, Sound Seismic Solutions; W. Rietveld, B. Barley, and J. Keggin, BP Egypt (ACQ 2.2) [2]*

9:20 AM ... An efficient and effective multistreamer, dual-source parameter test—J. Musser, A. Shaikh Mubarak*, and P. Titley, Saudi Aramco; M. Landais, CGGVeritas (ACQ 2.3) [3]*

9:45 AM .. An ocean bottom seismic node repeatability study—David Hays*, Ken Craft, and Paul Docherty, Fairfield Industries; Frans Smit, Shell E&P (ACQ 2.4) [3]*

10:10 AM . Source and receiver measurements and corrections for the effects of sea surface wave heights—Richard Goto, WesternGeco; Ed Kragh* and Robert Laws, Schlumberger Cambridge Research; William Geraint Morgan and Robert Phillips, WesternGeco (ACQ 2.5) [2]*

10:35 AM . A single-vessel method for wide-azimuth towed-streamer acquisition—Nick Moldoveanu*, Jerry Kapoor, and Mark Egan, WesternGeco (ACQ 2.6) [3]*

11 AM..... Evaluating infill requirements when acquiring a marine 3D seismic survey along preplot lines—C. Strand*, I. Buchan, and A. Mostavan, PGS; J. Ross and D. Monk, Apache (ACQ 2.7) [3]*

11:25 AM.. Wave-equation based 3D SRME impact on wide azimuth towed streamer survey design—Ehsan Sadeghi*, Alain Melois, and Alain-Christophe Bon, Total (ACQ 2.8) [3]*

AVO 1 Amplitude versus Offset

Session Chairmen: Robert Meek and Austin von der Hoya
Room: Lagoon EF ..... *(Wednesday, 12 November)*

8:30 AM ... 5D interpolation, PSTM and AVO inversion—J. Downton* and B. Durrani, CGGVeritas; L. Hunt, S. Hadley, and M. Hadley, Fairborne Energy (AVO 1.1) [3]*

8:55 AM ... Overburden-dependent AVO interpretation—L. Skopintseva* and A. Stovas, Norwegian U of Science and Technology (AVO 1.2) [4]*

9:20 AM ... Sensitivity analysis of multicomponent seismic attributes to fluid content and pore pressure—Alireza Shahin*, Paul L. Stoffa, Robert H. Tatham, Diana Sava, U of Texas (AVO 1.3) [3]*

9:45 AM ... Mu-rho direct inversion for volcanic rock reservoir prediction: A case study of the Dinan Field, Junggar Basin—J. Yang*, Zhuma Geophysical; H. Mao, Petrochina Xinjiang; X. Chang, Zhuma Geophysical; M. Zhu, X. Wang, and Y. Zou, Petrochina (AVO 1.4) [3]*

10:10 AM . On AVO gradient—Quanming Huo* and Xinping Chen, Research Inst of Coal Geophysical Exploration (AVO 1.5) [3]*

Oral Sessions ➤ Wednesday, 12 November (continued)

10:35 AM . Estimation of interval anisotropic attenuation from reflection data—Jyoti Behura and Ilya Tsvankin, Colorado School of Mines (AVO 1.6) [2]*

11 AM..... Picking the sweet spot using rock physics—Ken Titchkosky*, RPS Energy; Richard Thompson, Cyries Energy (AVO 1.7) [3]*

11:25 AM.. Converted wave AVO inversion for average velocity ratio and shear wave reflection coefficient—S. Wei and X.-Y. Li*, U of Edinburgh and British Geological Survey; T. Chen and Y. Ji, SinoPec E&P Research Inst (AVO 1.8) [3]*

MIN 1 Methodology

Session Chairmen: Mark Shore and Colin G. Farquharson
Room: Lagoon D (Wednesday, 12 November)

8:30 AM ... Geological mapping with power line fields measured with Megatem data—M. A. Vallée*, R. S. Smith, J. Lemieux, Fugro Airborne Surveys; P. Keating, Geological Survey of Canada; P. Houle, Ministère des Ressources naturelles et de la Faune du Québec (MIN 1.1) [2]*

8:55 AM .... Numerical modeling of Z-TEM (airborne AFMAG) responses to guide exploration strategies—Bob Lo*, Geotech; Michael Zang, Exploration Syndicate (MIN 1.2) [3]*

9:20 AM ... Should we care about negative transients in helicopter TEM data?—Sean E. Walker, Aeroquest (MIN 1.3) [3]*

9:45 AM ... Time-constant analysis of frequency-domain EM data—Daniel Sattel*, EM Solutions; Ken Witherly, Condor Consulting (MIN 1.4) [3]*

10:10 AM . The effect of discrete conductivity isotropy on electromagnetic surveys—Peter Walker*, Geophysical Algorithms; Yves Lamontagne, Lamontagne Geophysics (MIN 1.5) [3]*

10:35 AM . Minimum-structure borehole gravity inversion—Craig R. W. Mosher*, Colin G. Farquharson, and Charles A. Hurich, Memorial U of Newfoundland (MIN 1.6) [3]*

11 AM..... Modeling Archean diapiric tectonics: What can we learn about greenstone belt metallogeny?—Catherine M. I. Robin* and Richard C. Bailey, U of Toronto (MIN 1.7) [3]*

11:25 AM.. Optimal sensor configuration for total-field magnetometers—Stephen Billings* and David Wright, Sky Research (MIN 1.8) [3]*

NSE 2 Inversion and Engineering Applications

Session Chairmen: Ali I. Mese and Tom Dobecki
Room: Reef C (Wednesday, 12 November)

8:30 AM ... Gaining a geostatistical advantage in near-surface modeling—Ralph Bridle, Saudi Aramco (NSE 2.1) [4]*

8:55 AM ... Constraining geophysical inversions with geologic information—Peter Lelièvre*, Douglas Oldenburg, and Nicholas Williams, U of British Columbia (NSE 2.2) [3]*

9:20 AM ... Presenting a free, highly flexible inversion code—Anders Vest Christiansen* and Esben Auken, U of Aarhus (NSE 2.3) [4]*

9:45 AM ... Application of high-resolution linear Radon transform for Rayleigh-wave dispersive energy imaging and mode separating—Y. Luo, China U of Geosciences; J. Xia and R. D. Miller, U of Kansas; J. Liu, Y. Xu, and Q. Liu, China U of Geosciences (NSE 2.4) [3]*

10:10 AM . Inversion using Bayesian hyper-prior formulation for sharp boundaries—Partha Routh, ConocoPhillips; Mrinal Sen, U of Texas; Dan Whitmore and Phil Anno, ConocoPhillips (NSE 2.5) [3]*

10:35 AM . Resistivity tomography and borehole data analysis in the detection of Pre-Holocene relief in Pireaus city, Greece—G. Apostolopoulos*, U of Athens; K. Pavlopoulos, Harokopion U; D. Mavrommatis, U of Athens; E. Fouache, Paris XII U (NSE 2.6) [3]*

11 AM..... Characterization of frequency-dependent magnetic susceptibility in UXO electromagnetic geophysics—T. Meglich* and Y. Li, Colorado School of Mines; L. Pasion and D. Oldenburg, U of British Columbia; R. L. Van Dam, Michigan State U; S. Billings, Sky Research (NSE 2.7) [4]*

11:25 AM.. UXO detection and prioritization using combined airborne vertical magnetic gradient and time-domain electromagnetic methods—J. Sheehan, L. Beard, J. Gamey, W. Doll, and J. Norton, Battelle (NSE 2.8) [3]*

PSC 2 Interpretation and Case Histories

Session Chairmen: Margarita M. Corzo and Peter Duncan
Room: Lagoon J (Wednesday, 12 November)

8:30 AM ... Microseismic monitoring of nonlinear fluid-rock interaction: Hydraulic fracturing of geothermic and hydrocarbon reservoirs—Serge A. Shapiro* and Carsten Dinske, Freie U Berlin (PSC 2.1) [3]*

8:55 AM ... Microseismic signatures of nonlinear pore-pressure diffusion—Nicolas Hummel and Tobias M. Müller, U of Karlsruhe (PSC 2.2) [4]*

9:20 AM ... Interpretation of Microseismicity induced by a gel and a water fracturing in tight gas reservoir—Carsten Dinske* and Serge Shapiro, Freie U Berlin; James T. Rutledge, Los Alamos Nat'l Lab (PSC 2.3) [4]*

9:45 AM ... Microseismic monitoring of a Middle East carbonate reservoir: Minagish sensitivity test results—E. Gaucher*, C. Maisons, Magnitude; A. Y. Al-Kandari, K. Al-Atroshi, and J. M. Al-Kanderi, Kuwait Oil (PSC 2.4) [2]*

10:10 AM . Eight years of passive seismic monitoring at a petroleum field in Oman: A case study—S. Sarkar*, H. S. Kuleli, M. N. Toksöz, and H. Zhang, MIT; O. Ibi, F. Al-Kindy, and N. Al Touqi, Petroleum Development Oman (PSC 2.5) [1]*

10:35 AM . Locating trapped miners using super-stacking and super-resolution properties of time reversal mirrors—Sherif M. Hanafy, Cairo U; Weiping Cao, Kim McCarter, and Gerard T. Schuster, U of Utah (PSC 2.6) [4]*

11 AM..... Identification and interpretation of solution mining features in bedded salt deposits on a crosswell reflection profile—S. Boone and M. Monier-Williams, Golder Associates; R. Turpening, Michigan Technical U; T. Morgan*, K. Tandon and B. Bryans, Z-Seis (PSC 2.7) [3]*

11:25 AM.. Semiautomated relative picking of microseismic events—Daniel Raymer*, Schlumberger Cambridge Research, James Rutledge, Los Alamos Nat'l Lab; Paul Jaques, Geoware (PSC 2.8) [2]*

RP 2 Carbonate Rock Property Measurements and Modeling

Session Chairmen: Mike Batzle and Azra N. Tutuncu
Room: Lagoon C (Wednesday, 12 November)

8:30 AM ... Effects of fractures on the rock physics of limestones in Kashagan Field—Claudio D'Agosto* and Patrizia Cibin, Eni E&P; Roberto Miandro, Agip-KCO; Richard Nolen-Hoeksema and William Murphy, Earthworks (RP 2.1) [3]*

8:55 AM ... Carbonate rock physics: Geophysical and petrophysical pore types of carbonate rocks from an offshore carbonate field—R. Sain*, Stanford U; G. Chen, S. Xu, and M. A. Payne, ExxonMobil Upstream Research; A. Awas Sultan, Zakum Development (RP 2.2) [3]*

9:20 AM ... Oomoldic carbonates: Pore structure and fluid effects on sonic velocity—G. T. Baechle and G. P. Eberli, U of Miami; A. Boyd and J.-M. DeGrange, Schlumberger Doll Research Ctr; L. Al-Kharus, U of Miami (RP 2.3) [3]*

9:45 AM ... Factors affecting the sensitivity of the elastic properties to pressure on carbonate rocks—Cinzia Scotellaro* and Gary Mavko, Stanford U (RP 2.4) [4]*

10:10 AM . Intrinsic P- and S-wave attenuation of carbonate reservoir rocks from seismic, sonic, to ultrasonic frequencies—G. Chen*, D. Chu, J. Zhang, S. Xu, and M. A. Payne, ExxonMobil Upstream Research; L. Adam, Colorado School of Mines; W. L. Soroka, Adco (RP 2.5) [3]*

10:35 AM . How does carbonate cementation in sandstones affect seismic response?—Tanima Dutta*, Tapan Mukerji, and Gary Mavko, Stanford U (RP 2.6) [3]*

11 AM..... Water weakening of elastic moduli of carbonates interpreted by use of isoframe modeling—Ida L. Fabricius*, Technical U of Denmark; Gregor T. Bächle and Gregor P. Eberli, U of Miami (RP 2.7) [3]*

11:25 AM.. Rock physics interpolation used for velocity modeling of chalks: Ontong Java Plateau example—Mohammad Reza Saberi* and Tor Arne Johansen, U of Bergen (RP 2.8) [3]*

SI 2 Theory, Time Domain

Session Chairmen: Cengiz Esmersoy and Maarten V. de Hoop
Room: Lagoon A (Wednesday, 12 November)

8:30 AM ... Comparisons for waveform inversion, time domain or frequency domain?—Denes Vigh* and E. William Starr, Staag Imaging (SI 2.1) [3]*

8:55 AM ... Full-waveform inversion results when using acoustic approximation instead of elastic medium—Christophe Barnes*, U de Cergy-Pontoise; Marwan Charara, Inst de Physique du Globe (SI 2.2) [4]*

9:20 AM ... 3D waveform inversion based on reverse-time migration engine—Bin Gong*, Guoquan Chen, David Yingst, and Robert Bloor, ION GX Technology (SI 2.3) [3]*

9:45 AM ... Full elastic waveform inversion: Future of quantitative seismic imaging—S. Singh*, IPG Paris; T. Sears, U of Cambridge; M. Roberts, A. Gosselet, and G. Royle, IPG Paris; P. Baton, U of Cambridge (SI 2.4) [2]*

10:10 AM . Combining the gradual deformation method with seismic forward modeling to constrain reservoir models—Audrey Neau*, Total and U of Pau; Pierre Thore, Total; Béatrice de Voogd, U of Pau (SI 2.5) [3]*

10:35 AM . Stochastic seismic inversion using both waveform and traveltime data and its application to time-lapse monitoring—Youli Quan* and Jerry M. Harris, Stanford U (SI 2.6) [3]*

11 AM..... One-dimensional prestack seismic waveform inversion using ensemble Kalman filter—Long Jin*, Mrinal K. Sen, and Paul L. Stoffa, U of Texas (SI 2.7) [3]*

11:25 AM.. Velocity analysis with multiples–NMO modeling for layered velocity structures—T. van Leeuwen, Delft U; W. A. Mulder, Shell Int'l E&P (SI 2.8) [3]*

SPMI 2 Illumination and Image Attributes

Session Chairmen: Biondo Biondi and John T. Etgen
Room: Lagoon KL (Wednesday, 12 November)

8:30 AM .. Target oriented full-wave equation-based illumination analysis—Hui Yang* and Xiao-Bi Xie, U of California; Mingqiu Luo and Shengwen Jin, Screen Imaging (SPMI 2.1) [3]*

8:55 AM ... Full-azimuth angle domain imaging—Z. Koren, I. Ravve, E. Ragoza, and A. Bartana, Paradigm; D. Kosloff, Tel Aviv U and Paradigm (SPMI 2.2) [3]*

9:20 AM ... Angle-domain common-image gathers in generalized coordinates—Jeff Shragge, Stanford U (SPMI 2.3) [5]*

9:45 AM ... Optimizing the grouping of shots for shot-record migration—Scott Morton*, Mingjuan Shi, Jacques Leveille, and Mike Oyler, Hess (SPMI 2.4) [3]*

10:10 AM . Gaussian beam migration: Prestack, common-shot, TTI, true amplitude in angular domain—Massimo Virgilio*, Simone Re, and Daniele Colombo, WesternGeco (SPMI 2.5) [4]*

10:35 AM . Simultaneous time imaging, velocity estimation, and multiple suppression using local event slopes—Dennis Cooke*, Santos; Andrej Bóna, Curtin U; Benn Hansen, Hess (SPMI 2.6) [4]*

11 AM..... Local-angle domain illumination for full-wave propagators—Jun Cao* and Ru-Shan Wu, U of California (SPMI 2.7) [3]*

11:25 AM.. Wave equation depth migration—a new method of solution—L. Amundsen*, B. Arntsen, A. Reitan, E. Ø. Dischler, and B. Ursin, StatoilHydro Reseach Center and NTNU (SPMI 2.8) [5]*

ST 1 Interferometry and Anisotropy

Session Chairmen: Anton A. Duchkov and Mark Chapman
Room: Lagoon H (Wednesday, 12 November)

8:30 AM..... Deriving, explicating, and extending interferometric methods using Green's theorem—Adriana Citlali Ramírez* and Arthur B. Weglein, U of Houston (ST 1.1) [3]*

8:55 AM ... The effects of time-gating and radiation correction on virtual source data—Joost van der Neut*, Delft U; Andrey Bakulin, Shell Int'l E&P (ST 1.2) [4]*

9:20 AM..... Generalized representations of perturbed fields – Applications in seismic interferometry and migration—Ivan Vasconcelos, ION GXT Imaging (ST 1.3) [2]*

Oral Sessions ➤Wednesday, 12 November (continued)

9:45 AM ... The use of effective medium theories for seismic wave propagation and fluid flow in fractured reservoirs under applied stress—Yang Zhang*, MIT; Colin M. Sayers and José Adachi, Schlumberger (ST 1.4) [5]*

10:10 AM . Interpretation of angle gathers for transversely isotropic medium—Subhashis Mallick, Chevron Energy Technology (ST 1.5) [3]*

10:35 AM . Seismic anisotropy for polar media and an extended Thomsen formulation for longer offsets—James G. Berryman, Lawrence Berkeley Nat'l Lab (ST 1.6) [3]*

11 AM..... Anisotropic slowness inversion using 3D VSP data—S. Horne, B. Borland, and S. Ali, Schlumberger; G. Mercado, H. Ikawa, Abu Dhabi Marine Operating Co (ST 1.7) [3]*

11:25 AM.. 3D velocity-independent elliptically anisotropic moveout correction—William Burnett* and Sergey Fomel, U of Texas (ST 1.8) [3]*

SVIP 1 Velocity Anisotropy or Heterogeneity?

Session Chairmen: John Sinton and Carlos E. Guzman
Room: Lagoon B ..... *(Wednesday, 12 November)*

8:30 AM ... Direct nonlinear traveltime inversion in layered VTI media—P. J. Fowler*, A. Jackson, J. Gaffney, and D. Boreham, WesternGeco (SVIP 1.1) [3]*

8:55 AM ... Estimating HTI in the presence of strong VTI—Victoria Sublette*, Charles Sicking, and Galen Treadgold, Weinman GeoScience (SVIP 1.2) [3]*

9:20 AM ... Near-surface complexity could masquerade as anisotropy—X. Zhu, S. Shaw, B. Roy, M. Hall, M. Gurch, D. Whitmore, and P. Anno, ConocoPhillips (SVIP 1.3) [2]*

9:45 AM ... New life in old data? Unlocking the value in existing narrow-azimuth seismic data—Glenn B. Raney and David Walraven, Anadarko Petroleum (SVIP 1.4) [4]*

10:10 AM . Velocity updating around salt bodies using stress modeling solutions and nonlinear elasticity—Mita Sengupta* and Ran Bachrach, WesternGeco (SVIP 1.5) [2]*

10:35 AM . A practical approach to compensate for diodic effects of PS converted waves—Hengchang Dai* and Xiang-Yang Li, British Geological Survey (SVIP 1.6) [3]*

11 AM..... Automatic nonhyperbolic velocity analysis—Bjørn Ursin* and Brahim Abbad, Norwegian U of Science and Technology; Didier Rappin, Total E&P (SVIP 1.7) [4]*

11:25 AM... Interval anisotropic parameter estimation using velocity-independent layer stripping—Xiaoxiang Wang and Ilya Tsvankin, Colorado School of Mines (SVIP 1.8) [4]*

ACQ 3 Land

Session Chairmen: Eric Ruygrok and Gijs J. O. Vermeer
Room: Lagoon I ..... *(Wednesday, 12 November)*

1:30 PM .... Seismic survey design, data acquisition, and processing of complex Andean structures—P. Muñoz*, F. Ortigosa, J. Uribe, M. Benabentos, and C. Riaza, Repsol (ACQ 3.1) [3]*

1:55 PM .... Practical issues in achieving high-quality HFVS data—Stephen K. Chiu*, Joel Brewer, and Peter M. Eick, ConocoPhillips (ACQ 3.2) [3]*

2:20 PM .... Profiling the vibrator envelope at low frequencies—Zhouhong Wei, ION Geophysical (ACQ 3.3) [3]*

2:45 PM .... Alternative strategies for tackling scattered noise—Gijs J. O. Vermeer, 3DSymSam (ACQ 3.4) [3]*

3:10 PM .... Broadband vibroseis using simultaneous pseudorandom sweeps—J. J. Sallas, geoMagic; J. B. Gibson, F. Lin, O. Winter, B. Montgomery, and P. Nagarajappa, CGGVeritas (ACQ 3.5) [3]*

3:35 PM .... Single-sensor vibroseis acquisition in complex thrust belt areas – A case study from Dubai—Peter van Baaren*, WesternGeco; Frank van Kleef, Dubai Petroleum Establishment (ACQ 3.6) [1]*

4 PM ..... Efficient wavefield sampling in vibroseis operations—Thomas Bianchi, CGGVeritas; David Monk, Apache; Julien Meunier, CGGVeritas (ACQ 3.7) [3]*

4:25 PM ... 3D seismic acquisition in Tierra del Fuego, Argentina: A case history—Mike Yates*, Stuart Lake, Dave Monk, and Jeff Reck, Apache (ACQ 3.8) [3]*

BG 2 Sonic Logging and Acoustic

Session Chairmen: Omeragic Dzevat and Michael B. Rabinovich
Room: Lagoon D ..... *(Wednesday, 12 November)*

1:30 PM ..... Fracture compliance estimation using a combination of image and sonic logs—Romain Prioul*, Jeroen Jocker, and Philippe Montaggioni, Schlumberger (BG 2.1) [2]*

1:55 PM ..... High-resolution borehole acoustic imaging through a salt dome—D. Patterson and X. M. Tang, Baker Hughes; J. Ratigan, PB Energy Storage Services (BG 2.2) [3]*

2:20 PM .... Drill bit as a seismic source for near-well imaging—Flavio Poletto*, OGS; Francesco Miranda, Eni E&P; Piero Corubolo and Andrea Schleifer, OGS (BG 2.3) [4]*

2:45 PM .... Estimation of borehole ellipticity using cross-dipole dispersions—Ergun Simsek and Bikash K. Sinha, Schlumberger-Doll Research (BG 2.4) [3]*

3:10 PM .... Real-time completion monitoring of deepwater wells, Part I: Modeling and first experiments—A. Bakulin*, Shell Int'l E&P; A. Sidorov, B. Kashtan, St. Petersburg State U; M. Jasskelainen, Shell Int'l E&P (BG 2.5) [2]*

3:35 PM .... The effect of near-wellbore yield on elastic wave velocities in sandstones—Colin M. Sayers*, José Adachi, Schlumberger; Arash Dahi Taleghani, U of Texas (BG 2.6 [3]*

4 PM ..... Wavefield separation for borehole acoustic reflection surveys using parametric inversion—Nobuyasu Hirabayashi*, W. Scott Leaney, and Jakob B. U. Haldorsen, Schlumberger (BG 2.7) [3]*

4:25 PM .... Passive "drive-by" imaging in a deep water production well using permanent borehole seismic sensors—Brian E. Hornby* and Tom Burch, BP E&P (BG 2.8) [3]*

4:50 PM ... Prediction ahead of the bit using borehole guided waves—Olaf Hellwig* and Thomas Bohlen, Technische U Bergakademie Freiberg (BG 2.9) [3]*

CH 2 International Offshore

Session Chairmen: Dave Agarwal and Luis Canales
Room: Lagoon EF (Wednesday, 12 November)

1:30 PM.... **Seismic prediction of stringer sands in offshore Saudi Arabia**—J. Fitzmaurice*, T. Tonellot, S. Rahati, W. Zhu, M. Al-Otaibi, and H. Soepriatna, Saudi Aramco (CH 2.1) [3]*

1:55 PM.... **Stratigraphic and structural volume visualization of a deltaic marine fan complex, Niger Delta, Nigeria: A case history**—Charles Ojo*, Nigerian Agip Oil; Iyabo Sindiku, Halliburton; Monday Agbuza, Napims/NNPC (CH 2.2) [3]*

2:20 PM.... **Extending the limits of technology to explore below the DHI floor; successful application of spectral decomposition to delineate DHI's previously unseen on seismic data**—W. A. Fahmy*, G. Matteucci, J. Parks, and M. Matheney, ExxonMobil Exploration; J. Zhang, ExxonMobil Research (CH 2.3) [3]*

2:45 PM.... **Depth imaging over structural transverse isotropy (STI) media in the presence of complex salt bodies, offshore West Africa**—Johnni Cestari-Cuenca*, Jean Arnaud, and Marc Elias, Total (CH 2.4) [3]*

3:10 PM.... **Validating models by geologic and seismic modeling for reducing risk in global exploration - A case study from the NCS**—Gerrit Toxopeus* and Erik Ødegaard, StatoilHydro; Per Avseth, Rock Physics Technology (CH 2.5) [3]*

3:35 PM.... **Integrated geology and geophysics for subsalt exploration – A case study from offshore Brazil**—M. Rhodes*, S.-K. Foss, B. Dalstrøm, C. Gram, and A. Welbon, Statoil (CH 2.6) [3]*

4 PM..... **A calibrated dual-sensor streamer investigation of deep target signal resolution and penetration on the NW Shelf of Australia**—Andrew Long*, Dave Mellors, Terry Allen, and Avon McIntyre, PGS (CH 2.7) [2]*

4:25 PM.... **Complex imaging challenges offshore southeast India**—P. Sangvai, A. Biswal, M. Mathur, Reliance Industries; J. Fruehn, P. Smith, I. F. Jones *, D. King, M. Goodwin, V. Valler, ION GX Technology (CH 2.8) [3]*

4:50 PM.... **3D beam prestack depth migration with examples from around the world**—John W. C. Sherwood, Kevin Sherwood, Hans Tieman, and Karl Schleicher*, Applied Geophysical Services PGS (CH 2.9) [3]*

EM 3 Acquisition, Processing, and Applications

Session Chairmen: Lucy MacGregor and (Ian) Zhiyi Zhang
Room: Lagoon J (Wednesday, 12 November)

1:30 PM.... **Inversion study of a large marine CSEM survey**—J. J. Carazzone, T. A. Dickens, K. E. Green, C. Jing, L. A. Wahrmund, and D. E. Willen, ExxonMobil Upstream Research; M. Commer and G. A. Newman, Lawrence Berkeley Nat'l Lab (EM 3.1) [3]*

1:55 PM.... **Quantifying factors affecting repeatability in CSEM surveying for reservoir appraisal and monitoring**—Andrei Chuprin*, David Andréis, and Lucy MacGregor, OHM (EM 3.2) [3]*

2:20 PM.... **Marine time domain CSEM: An emerging technology**—Kurt Strack* and Norman Allegar, KMS Technologies; Svein Ellingsrud, Electromagnetic Geoservices (EM 3.3) [3]*

2:45 PM.... **Seismic and EM rock physics and modeling, Norwegian Sea**—Joel Walls and Rone Shu, OHM-Rock Solid Images (EM 3.4) [2]*

3:10 PM.... **Frontier exploration by electromagnetic scanning - A deep water example**—J. Suffert*, EMGS; P. Sangvai, Reliance; F. Roth, EMGS; A. Tyagi and R. Bastia, Reliance (EM 3.5) [3]*

3:35 PM.... **Successful transient EM survey in the North Sea at 100-m water depth**—Anton Ziolkowski*, David Wright, Guy Hall, and Craig Clarke, PGS (EM 3.6) [2]*

4 PM..... **Removal of sea-surface-related wavefields and source replacement in CSEM data processing**—P. M. van den Berg*, Delft U; A. Abubakar and T. M. Habashy, Schlumberger-Doll Research (EM 3.7) [2]*

4:25 PM... **Anisotropy of induced polarization in the context of the generalized effective-medium theory**—M. S. Zhdanov, A. Gribenko, V. Burtman*, U of Utah; V. I. Dmitriev, Moscow State U (EM 3.8) [3]*

4:50 PM... **CSEM survey design for successful imaging**—Scott C. Hornbostel* and Ken E. Green, ExxonMobil Upstream Research (EM 3.9) [3]*

INT 2 Attributes, Workflows, and Visualization

Session Chairmen: Dave Hale and Jesse M. Lomask
Room: Lagoon H (Wednesday, 12 November)

1:30 PM.... **Geovolume visualization and interpretation: What makes a useful visualization seismic attribute?**—Tatum M. Sheffield* and Barton A. Payne, Chevron Energy Technology (INT 2.1) [3]*

1:55 PM.... **Prestack spectral blueing: A tool for increasing seismic resolution**—S. Hesam Kazemeini*, Uppsala U and U of Texas; Sergey Fomel, U of Texas; Christopher Juhlin, Uppsala U (INT 2.2) [2]*

2:20 PM.... **Detection of channels in seismic images using the steerable pyramid**—John Mathewson* and Dave Hale, Colorado School of Mines (INT 2.3) [3]*

2:45 PM.... **Predictive painting of 3D seismic volumes**—Sergey Fomel, U of Texas (INT 2.4) [2]*

3:10 PM.... **Simulated annealing for hierarchical seismic pattern detection**—Kou-Yuan Huang* and Ying-Liang Chou, Nat'l Chiao Tung U (INT 2.5) [3]*

3:35 PM.... **A knowledge-based approach of seismic interpretation: Horizon and dip-fault detection by means of cognitive vision**—Philippe Verney*, IFP/ENSMP; Jean-François Rainaud, IFP; Michel Perrin, École des Mines de Paris; Monique Thonnat, INRIA (INT 2.6) [4]*

4 PM..... **Confidence and curvature-guided level sets for channel segmentation**—Benjamin J. Kadlec* and Geoffrey A. Dorn, TerraSpark Geosciences; Henry M. Tufo, U of Colorado (INT 2.7) [4]*

4:25 PM.... **Expanding the applicability of curvature attributes through clarification of ambiguities in derivation and terminology**—Jamie Rich, Devon Energy (INT 2.8) [3]*

Oral Sessions ➤ Wednesday, 12 November (continued)

NSE 3 Seismic

Session Chairmen: Steve H. Danbom and Georgios P. Tsoflias
Room: Reef C ..... *(Wednesday, 12 November)*

1:30 PM ..... High-resolution seismic imaging of active strike-slip faults in coastal and offshore southern California—Mark R. Legg*, Legg Geophysical; Mike Barth, Subsea Systems; Robert D. Francis, California State U (NSE 3.1) [3]*

1:55 PM ..... Raypath interferometry: Statics in difficult places—David C. Henley, U of Calgary (NSE 3.2) [4]*

2:20 PM ..... Nonintrusive monitoring using seismic tomography at the Mont Terri rock laboratory—E. Manukyan*, H. Maurer, S. Marelli, S. A. Greenhalgh, and A. G. Green, ETH Zurich (NSE 3.3) [2]*

2:45 PM ..... Seismic modeling and analysis of the prototype heated nuclear waste storage tunnel, Yucca Mountain, Nevada—Steven Smith* and Roel Snieder, Colorado School of Mines (NSE 3.4) [3]*

3:10 PM ..... Acquiring shear-wave information in shallow water environment from field data near Ghent, Belgium—N. el Allouche*, G. G. Drijkoningen, R. Ghose, and J. W. Thorbecke, Delft U; W. Versteeg, Ghent U (NSE 3.5) [3]*

3:35 PM ..... Scattering of surface waves due to shallow heterogeneities—Barbara Luke,* U of Nevada; Carlos Calderón-Macías, ION GX Technology (NSE 3.6) [3]*

4 PM ..... Application of the surface-wave method to the evaluation of local site effect of an earthquake—Koichi Hayashi*, OYO; Tsutomu Hirade, Building Research Inst of Japan (NSE 3.7) [2]*

4:25 PM ..... A trade-off between model resolution and variance with selected Rayleigh-wave data—Jianghai Xia* and Richard D. Miller, Kansas Geological Survey - U of Kansas; Yixian Xu, China U of Geosciences (NSE 3.8) [3]*

RP 3 Unconventionals: Heavy Oil and Hydrate Applications and Modeling

Session Chairmen: De-hua Han and Michael Myers
Room: Lagoon C ..... *(Wednesday, 12 November)*

1:30 PM ..... Velocity and dispersion of heavy oils—De-hua Han and Jiajin Liu, U of Houston; Michael Batzle, Colorado School of Mines (RP 3.1) [4]*

1:55 PM ..... Elastic properties of heavy-oil saturated rocks: Comparison of modeled and measured results—Agnibha Das* and Michael Batzle, Colorado School of Mines (RP 3.2) [3]*

2:20 PM ..... Fluid substitution in heavy oil rocks—Dina Makarynska and Boris Gurevich*, Curtin U and CSIRO (RP 3.3) [3]*

2:45 PM ..... Seismic rock physics of steam injection in bituminous oil reservoirs—Evan M. Bianco*, Sam T. Kaplan, and Douglas R. Schmitt, U of Alberta (RP 3.4) [3]*

3:10 PM ..... Elastic property changes of bitumen reservoir during steam injection—Ayato Kato*, U of Houston; Shigenobu Onozuka, Japan Oil, Gas and Metals Nat'l Corp; Toru Nakayama, Japan Petroleum Exploration (RP 3.5) [3]*

3:35 PM ..... Shear thinning behavior of heavy oil samples: Laboratory measurements and modeling—M. A. Rojas*, J. Castagna, R. Krishnamoorti, and D. Han, U of Houston; A. Tutuncu, Shell E&P (RP 3.6) [2]*

4 PM ..... An experimental study for removal of near-wellbore asphaltene deposits using ultrasonics—Azra N. Tutuncu* and Robert Joha, Shell E&P (RP 3.7) [2]*

4:25 PM ..... Rock-physics joint inversion of resistivity log and seismic velocity for hydrate characterization—D. Sava*, B. Hardage, P. Murray, and M. DeAngelo, U of Texas (RP 3.8) [3]*

4:50 PM ..... Pore-scale modeling of gas hydrate formation and comparison to lab experiments—Youngseuk Keehm* and Pilsun Yoon, Kongju Nat'l U (RP 3.9) [3]*

SI 3 Theory, Frequency Domain

Session Chairmen: Partha S. Routh and Cengiz Esmersoy
Room: Lagoon A ..... *(Wednesday, 12 November)*

1:30 PM ..... A comparative study of cascaded frequency-selection strategies for 2D frequency-domain acoustic waveform inversion—Hobum Cho*, Dong-Joo Min, Young Ho Cha, and Changsoo Shin, Seoul National U; Seungwon Ko, Korea National Oil (SI 3.1) [3]*

1:55 PM ..... 2D frequency-domain waveform inversion of coupled acoustic-elastic media with an irregular interface—Myung Hoon Kim*, Yoonseok Choi, Young Ho Cha, and Changsoo Shin, Seoul National U (SI 3.2) [3]*

2:20 PM ..... Subsalt imaging by full-waveform inversion: A parameter analysis—C. Ravaut*, M. Alerini, and S. Pannetier-Lescoffit, Sintef Petroleum Research; E. Thomassen, Sintef and Norwegian U of Science and Technology (SI 3.3) [3]*

2:45 PM ..... 3D frequency-domain full-waveform tomography based on a domain decomposition forward problem—Hafedh Ben-Hadj-Ali* and Stéphane Operto, Géosciences Azur CNRS; Jean Virieux, U Joseph Fourier; Florent Sourbier, CNRS (SI 3.4) [3]*

3:10 PM ..... Full waveform inversion based on reverse time propagation—Yu Zhang and Fuchun Gao, CGGVeritas (SI 3.5) [2]*

3:35 PM ..... An iterative multilevel method for computing wavefields in frequency-domain seismic inversion—Yogi A. Erlangga* and Felix J. Herrmann, U of British Columbia (SI 3.6) [3]*

4 PM ..... A local contrast source inversion algorithm for crosswell time-lapse seismic applications—W. Hu*, A. Abubakar, and T. Habashy, Schlumberger; P.M. van den Berg, Delft U (SI 3.7) [3]*

4:25 PM ..... Improved logarithmic waveform inversion considering the power-spectrum of the wavefield—Youngseo Kim*, Young Ho Cha, Changsoo Shin, Seungwon Ko, and Youngtak Seo, Seoul National U (SI 3.8) [3]*

SM 2 General Seismic Modeling of Structures

Session Chairmen: Alison E. Malcolm and Michael Fehler
Room: Lagoon B ..... *(Wednesday, 12 November)*

1:30 PM ..... Simulations of acoustic and elastic wavefields: A robust NAD algorithm with automatically eliminating numerical dispersion—Dinghui Yang*, Tsinghua U; Biaolong Hua, Henri Calandra, and Bertrand Denel, Total CSTJF (SM 2.1) [3]*

1:55 PM .... Full azimuth seismic modeling in the Norwegian Sea—M. Houbiers*, B. Arntsen, and J. Mispel, StatoilHydro; E. Hager, G. Brown, and D. Hill, WesternGeco (SM 2.2) [3]*

2:20 PM .... Efficient seismic forward modeling using simultaneous random sources and sparsity—R. Neelamani*, C. E. Krohn, J. R. Krebs, M. Deffenbaugh, and J. E. Anderson, ExxonMobil; J. K. Romberg, Georgia Inst of Technology (SM 2.3) [3]*

2:45 PM .... Modeling mesoscopic attenuation in a highly heterogeneous Biot medium employing an equivalent viscoelastic model—Juan E. Santos, U Nac'l de La Plata and Purdue U; J. Germán Rubino and Claudia L. Ravazzoli, U La Plata (SM 2.4) [3]*

3:10 PM .... Seismic models of reflections from attenuating layers—Richard L. Gibson Jr., Texas A&M (SM 2.5) [3]*

3:35 PM .... Interpolating solutions of the Helmholtz equation with compressed sensing—Tim T. Y. Lin*, Evgeniy Lebed, Yogi A. Erlangga, and Felix J. Herrmann, U of British Columbia (SM 2.6) [3]*

4 PM ..... Modeling of "dirty salt"—Jon André Haugen, Børge Arntsen, and Joachim Mispel, StatoilHydro Research Center (SM 2.7) [3]*

4:25 PM .... Wave equation illumination using sparse-frequency one-way wavefield extrapolation—John T. Etgen, BP (SM 2.8) [3]*

SPMI 3 Computational Methods

Session Chairmen: Samuel H. Gray and Jia Yan
Room: Lagoon KL ..... (Wednesday, 12 November)

1:30 PM .... 3D reverse-time migration with hybrid finite difference-pseudospectral method—A.-C. Lesage, Barcelona Supercomputing Center; H. Zhou, Repsol YPF; M. Araya-Polo and J.-M. Cela, Barcelona Supercomputing Center; F. Ortigosa, Repsol YPF (SPMI 3.1) [4]*

1:55 PM .... Phase-shift time-stepping for reverse-time migration—Ben D. Wards*, Gary F. Margrave, and Michael P. Lamoureux, U of Calgary (SPMI 3.2) [3]*

2:20 PM .... Computational strategies for reverse-time migration—E. Dussaud*, Total E&P; W. W. Symes, Rice U; P. Williamson, L. Lemaistre, and P. Singer, Total E&P; Bertrand Denel and Adam Cherrett, Total (SPMI 3.3) [4]*

2:45 PM .... Two-step explicit marching method for reverse-time migration—Robert Soubaras and Yu Zhang, CGGVeritas (SPMI 3.4) [4]*

3:10 PM .... An antidispersion wave equation for modeling and reverse-time migration—Faqi Liu*, Hess; Guanquan Zhang, Chinese Academy of Sciences; Scott A. Morton and Jacques P. Leveille, Hess (SPMI 3.5) [4]*

3:35 PM .... Increasing the parallelism in common azimuth migration with overlap domain decomposition—Sean Crawley, 3DGeo (SPMI 3.6) [4]*

4 PM ..... A fast and accurate interpolation algorithm for one-way wave equation migration—Weihong Fei and Paul Williamson, Total E&P (SPMI 3.7) [3]*

4:25 PM .... Asymptotically true-amplitude one-way wave equations in *t*: modeling, migration, and inversion—Norman Bleistein,* Colorado School of Mines; Yu Zhang, CGGVeritas; Guanquan Zhang, Academia Sinica (SPMI 3.8) [4]*

NOTES:

Oral Sessions ➤Thursday, 13 November

CH 3 Onshore

Session Chairmen: Robert W. Wiley and Bruce E. Cornish
Room: Lagoon EF ..... *(Thursday, 13 November)*

8:30 AM ... Wide-azimuth complex structural imaging in Liaohe Basin—P. Guo*, W. Zhang, and B. Liu, PetroChina; J. Guo, GeoApex Technology; J. Li, PetroChina (CH 3.1) [4]*

8:55 AM ... Seismic data mapping scheme based on migration/demigration applied in overthrust data processing: A case history in Tianshan Mountain—Yu-Wei Wang*, Kai Yang, Liang-Guo Dong, Tongji U (CH 3.2) [2]*

9:20 AM ... Integration of seismic attribute analysis and well data to identify depositional trends: A case study from Kuwait—Srinivasa Rao Narhari*, Mohamed Dawaas Al-Ajmi, Saifullah Khan Tanoli, and Bashar Al-Qadeeri, Kuwait Oil (CH 3.3) [3]*

9:45 AM ... 3D multiscale tomography: A case study from Oklahoma mountain front—Elive M. Menyoli* and Brian Burgess, Marathon Oil (CH 3.4) [3]*

10:10 AM . Seismic characterization of fractured tight gas reservoirs, Piceance Basin, Colorado—K. T. Lewallen*, ExxonMobil Upstream Research; Ran Zhou (formerly at Read Well Logging); G. Chen and X. Wu, ExxonMobil Upstream Research; P. Todd, ExxonMobil Production (CH 3.5) [3]*

10:35 AM . Lessons from a world-first onshore cableless full-wavefield 3D seismic survey—Nicki Adams* and Rosemarie Ramkhelawan, BP America (CH 3.6) [3]*

11 AM..... Successful gas hydrate prospecting using 3D seismic - A case study for the Mt. Elbert prospect, Milne Point, North Slope Alaska—Tanya L. Inks*, IS Interpretation Services; Warren F. Agena and Myung Lee, U.S. Geological Survey (CH 3.7) [2]*

11:25 AM.. Extending the seismic bandwidth–A simultaneous uncorrelated VSP and surface seismic field test study—P. I. Pecholcs*, R. Al-Saad, and H. B. Heijna, Saudi Aramco; J. B. U. Haldorsen, R. T. Coates, C. Barajas-Olalde, and S. Ahmed, Schlumberger (CH 3.8) [3]*

MIN 2 Methodology and Case Histories

Session Chairmen: Peter W. Walker and Bob Lo
Room: Lagoon D ..... *(Thursday, 13 November)*

8:30 AM ... The use of unmanned aircraft in oil, gas, and mineral E+P activities—Joseph A. Barnard, Barnard Microsystems (MIN 2.1) [2]*

8:55 AM ... Exploration on the Cinco de Mayo carbonate replacement project, Chihuahua, Mexico—K. Robertson*, MAG Silver; P. Megaw and J. McGlasson, Imdex/Cascabel; D. MacInnis, MAG Silver (MIN 2.2) [3]*

9:20 AM ... Geophysical signature of the Mt. Milligan Cu/Au deposit in the Quesnel Porphyry Belt—Sergio Espinosa-Corriols*, Terrane Metals; Peter Kowalczyk, Geoscience BC (MIN 2.3) [4]*

9:45 AM..... Exploring for geothermal reservoirs using broadband 2D MT and gravity in Hungary—H. Tulinius, L. Ádám, H. Halldórsdóttir, VGK-Hönnun; G. Yu*, K. Strack, and N. Allegar, KMS; L. He and Z. He, BGP (MIN 2.4) [3]*

10:10 AM . Characterizing a geothermal reservoir using broadband 2D MT survey in Theistareykir, Iceland—G. Yu*, K. Strack, and N. Allegar, KMS; Á. Gunnarsson, Landsvirkjun; H. Tulinius, VGK-Hönnun; L. He and Z. He, BGP (MIN 2.5) [3]*

10:35 AM . The application of DSU1 high-density 3D in coal field exploration—M. Wang*, H. Li, Z. Zhang, and P. Li, BGP (MIN 2.6) [1]*

11 AM..... Integrating geophysics and geology in 3D—Ken Witherly, Condor Consulting (MIN 2.7) [3]*

11:25 AM.. Wavelet and statistical investigation of density and susceptibility data from the Bellevue drill core and Moordkopje borehole, Bushveld Complex, South Africa—Susan J. Webb*, Gordon R. J. Cooper, and Lewis D. Ashwal, U of the Witwatersrand (MIN 2.8) [3]*

RP 4 Applied Rock Physics Models

Session Chairmen: Manika Prasad and Gary Mavko
Room: Lagoon C ..... *(Thursday, 13 November)*

8:30 AM ... Rock physics as the basis for inverting geophysical observations—Michael A. Payne, ExxonMobil Upstream Research (RP 4.1) [3]*

8:55 AM ... Wave propagation across partially infill fracture—Angel A. Acosta-Colón* and Laura J. Pyrak-Nolte, Purdue U (RP 4.2) [3]*

9:20 AM..... Amplitude-versus-frequency variations in thinly layered porous rocks—Haitao Ren and Gennady Goloshubin, U of Houston; Fred Hilterman, Geokinetics (RP 4.3) [3]*

9:45 AM ... Approximate fluid substitution in weakly anisotropic VTI rocks—Kaushik Bandyopadhyay and Gary Mavko*, Stanford U (RP 4.4) [2]*

10:10 AM . Constrained rock physics modeling—Anders Dræge, StatoilHydro (RP 4.5) [4]*

10:35 AM . Fluid-solid substitution in rocks with disconnected porosity—Vladimir Grechka, Shell E&P (RP 4.6) [3]*

11 AM..... Evaluation of an IOR discovery at the Oseberg Field in the North Sea using rock physics and seismic data analysis—Harald Flesche*, Helge Rutledal, and Alistair Fraser, StatoilHydro (RP 4.7) [3]*

11:25 AM.. Estimating low frequency seismic impedance from CSEM resistivity using cross-property rock physics relations—Tapan Mukerji, Gary Mavko, and Carmen Gomez, Stanford U (RP 4.8) [2]*

SI 4 AVO, Laplace, Others ...

Session Chairmen: Paul L. Stoffa and Cengiz Esmersoy
Room: Lagoon A ..... *(Thursday, 13 November)*

8:30 AM ... Estimation of facies probabilities on the Snorre Field using geostatistical AVA inversion—Sebastian Ng, StatoilHydro Research Ctr; Pal Dahle, Ragnar Hauge, and Odd Kolbjørsen, Norwegian Computing Ctr (SI 4.1) [3]*

8:55 AM..... 3D elastic full waveform inversion in the Laplace domain—S. Pyun*, C. Shin, and H. Lee, Seoul Nat'l U; D. Yang, Ministry of Knowledge Economy (SI 4.2) [3]*

9:20 AM ... The direct-removal method of waveform inversion in the Laplace domain for deep-sea environments—Dongkweon Lee*, Young Ho Cha, and Changsoo Shin, Seoul National U (SI 4.3) [3]*

9:45 AM ... Imaging with complex decomposition: Numerical applications to seismic processing in difficult areas—A. Lau*, Apache; M. Roque-Sol, C. M. Lapilli, J. Perdomo, C. Shih, A. González, and L. Canales, WesternGeco (SI 4.4) [3]*

10:10 AM . Wavelet estimation using a very fast simulated annealing and spline based parameterization—Abhijit Gangopadhyay*, BP America; Long Jin, U of Texas (SI 4.5) [4]*

10:35 AM . Deconvolution with curvelet-domain sparsity—Vishal Kumar* and Felix J. Herrmann, U British Columbia (SI 4.6) [3]*

11 AM..... Fluid discrimination and reservoir characterization from onshore Niger Delta—L. M. Omudu*, Shell Petroleum Development; J. O. Ebeniro, U of Port Harcourt; M. Xynogalas, Nedo Osayande, and Sam Olotu, Shell Petroleum Development (SI 4.7) [4]*

11:25 AM.. Reservoir prediction technology based on prestack Radon field attributes and its applications—C. Teng, Z. Shen, H. Xu, Y. Li, B. Jiang, and J. Guo, China Nat'l Offshore Oil; Y. Liu, U of Calgary (SI 4.8) [3]*

SPMI 4 Practical Solutions

Session Chairmen: Alexander M. Popovici and Sergey Fomel
Room: Lagoon KL ..... *(Thursday, 13 November)*

8:30 AM ... Preprocessing considerations for reverse-time migration—I.F. Jones, GX Technology (SPMI 4.1) [3]*

8:55 AM ... Seismic imaging through gas clouds: A data-driven imaging strategy—A. R. Ghazali*, Petronas; D. J. Verschuur and A. Gisolf, Delft U (SPMI 4.2) [3]*

9:20 AM ... Modeling case study of a subsalt exploration concept—John Sinton*, Jim Blackerby, and Steve Whitney, ConocoPhillips; Steve Sloan, U of Kansas (SPMI 4.3) [3]*

9:45 AM ... Multiarrival Kirchhoff beam migration—Jonathan Liu*, ExxonMobil Upstream Research; Gopal Palacharla, ExxonMobil Exploration (SPMI 4.4) [3]*

10:10 AM . Application of one-way wave-equation migration in tilted coordinates to salt-model building at Atlantis—B. Nolte*, I. Ahmed, P. Mahob, D. Shepherd, R. Faerber, and J. Howie, BP (SPMI 4.5) [3]*

10:35 AM . Velocity sensitivity of reverse-time migration—Guojian Shan*, Lin Zhang, Yue Wang, Tamas Nemeth, and Wei Liu, Chevron Energy Technology (SPMI 4.6) [3]*

11 AM..... Target-oriented reverse-time migration for two-way prestack depth imaging—Wei Liu* and Yue Wang, Chevron Energy Technology (SPMI 4.7) [3]*

11:25 AM.. Localized reverse-time migration for salt model building—Kwangjin Yoon*, Bin Wang, Young Kim, and Huimin Guan, TGS-Nopec (SPMI 4.8) [3]*

11:50 AM.. Hybrid one-way and full-way wave equation propagator and prestack migration—Mingqiu Luo and Shengwen Jin, Screen Imaging Technology (SPMI 4.9) [4]*

SPNA 2 Random Noise Attenuation

Session Chairmen: Raymond L. Abma and John F. Parrish
Room: Lagoon I ..... *(Thursday, 13 November)*

8:30 AM ... F-xy Cadzow noise suppression—Stewart Trickett, Kelman Technologies (SPNA 2.1) [3]*

8:55 AM ... Random and coherent noise attenuation by empirical mode decomposition—Maiza Bekara, PGS; Mirko van der Baan*, U of Leeds (SPNA 2.2) [3]*

9:20 AM ... Seismic data enhancement with common reflection surface (CRS) stack method—Mikhail Baykulov* and Dirk Gajewski, U of Hamburg (SPNA 2.3) [2]*

9:45 AM ... A statistical technique for high amplitude noise detection: Application to swell noise attenuation—Maza Bekara*, PGS; Analiese Ferreira, and Mirko van der Baan, U of Leeds (SPNA 2.4) [3]*

10:10 AM . Mountain front seismic processing—C. Duque, BP E&P; J. Checa*, BP Colombia; H. Alfonso, Ecopetrol; E. Chalar and D. Pastore, CGGVeritas; C. Pedraza, Petroseis Colombia (SPNA 2.5) [3]*

10:35 AM . A case study for structural and stratigraphical enhancement in the western Sahara desert—M. S. Donati* and P. Muñoz, Repsol; A. O. BenGheit and L. Abushaala, Remsa; F. Ortigosa, Repsol; A. M. Washah, NOC (SPNA 2.6) [3]*

11 AM..... Frequency dependent, structurally conformable filtering—David N. Whitcombe* and Linda Hodgson, BP; Henning Hoeber, CGGVeritas; Zhou Yu, BP (SPNA 2.7) [2]*

11:25 AM.. De-noising seismic data in the time-frequency domain—Thomas Elboth*, Fugro Geoteam; Hamid Hayat Qaisrani and Thomas Hertweck, Fugro Seismic Imaging (SPNA 2.8) [3]*

ST 2 Layered Media, Sampling and Wave Propagation

Session Chairmen: Faqi Liu and Gilles Lambaré
Room: Lagoon H ..... *(Thursday, 13 November)*

8:30 AM ... Direct nonlinear Q compensation of primaries in layered media: Theory and synthetic examples—K. A. Innanen and J. E. Lira, U of Houston (ST 2.1) [4]*

8:55 AM ... Dynamic aspects of apparent attenuation and wave localization in layered media—Matthew M. Haney*, USGS Alaska Volcano Observatory; Kasper van Wijk, Boise State U (ST 2.2) [5]*

9:20 AM ... Estimation of subtuned reservoir thickness from amplitudes at different seismic bandwidths – a time-domain approach—Vijay Khare* and Alex Martinez, ExxonMobil Upstream Research (ST 2.3) [4]*

9:45 AM ... Variable bit and variable bandwidth sampling—F. Sherrill*, M. Bayly, R. Tomich, J. Moeller, and A. Tran, WesternGeco (ST 2.4) [3]*

10:10 AM . Quality control and bandwidth optimization of compact Fourier interpolation operators—Ian Moore*, Ralf Ferber, and Bob Vauthrin, WesternGeco (ST 2.5) [3]*

10:35 AM . Seismic wave propagation and imaging using time-space wavelets—Ru-Shan Wu*, U of California; Bangyu Wu and Yu Geng, Xi'an Jiaotong U (ST 2.6) [4]*

Oral Sessions ➤ Thursday, 13 November (continued)

11 AM..... Reconstruction of pressure wavefields in the crossline direction using multicomponent streamer recordings—J. O. A. Robertsson*, I. Moore, and A. Özbek, Schlumberger Cambridge Research; M. Vassallo, K. Özdemir, and D.-J. van Manen, WesternGeco (ST 2.7) [3]*

11:25 AM.. A Gaussian beam analysis of the Radon transform—William Burnett* and Sergey Fomel, U of Texas (ST 2.8) [3]*

SVIP 2 Model Building for Complex Imaging

Session Chairmen: Matthew A. Brzostowski and Xianhuai Zhu
Room: Lagoon J ..... *(Thursday, 13 November)*

8:30 AM ... Angle-domain common-image gathers for steep reflectors—Guojian Shan*, Chevron Energy Technology; Biondo Biondi, Stanford U (SVIP 2.1) [3]*

8:55 AM ... Beam-based interactive imaging for salt interpretation and salt model building—B. Wang, J. Ji, C. Mason, S. Gajawada, and Y. Kim, TGS (SVIP 2.2) [3]*

9:20 AM ... Velocity model building with wave-equation migration velocity focusing analysis—Morgan P. Brown* and Joseph H. Higginbotham, Wave Imaging Technology; Robert G. Clapp, Stanford U (SVIP 2.3) [3]*

9:45 AM ... Wave-equation migration velocity focusing analysis—Joseph H. Higginbotham* and Morgan P. Brown, Wave Imaging Technology; Robert G. Clapp, Stanford U (SVIP 2.4) [3]*

10:10 AM . Image segmentation for velocity model construction and updating—Adam D. Halpert*, Robert G. Clapp, Jesse Lomask, and Biondo Biondi, Stanford U (SVIP 2.5) [3]*

10:35 AM... A wave-equation migration velocity analysis approach based on the finite-frequency sensitivity kernel—Xiao-Bi Xie* and Hui Yang, U of California (SVIP 2.6) [3]*

11 AM..... Wavepath tomography for model building and hazard detection—D. Bevc* and M. M. Fliedner, 3DGeo; B. Biondi, Stanford U (SVIP 2.7) [2]*

11:25 AM.. Tomographic migration-velocity analysis using common angle image gathers—Fan Xia*, Yiqing Ren, and Shengwen Jin, Screen Imaging Technology (SVIP 2.8) [3]*

VSP 2 2DVSP Data Enhancement and Imaging Techniques

Session Chairmen: Lisa M. LaFlame and Richard A. Mongan
Room: Lagoon B ..... *(Thursday, 13 November)*

8:30 AM ... A strategy for attenuating VSP migration artifacts: Local beam migration—Jianhua Yu and Brian Hornby, BP America (VSP 2.1) [3]*

8:55 AM ... Target-oriented velocity improvement by VSP interferometric CMP gathers—R. He*, A. Goertz, M. Karrenbach, V. Soutyrine, and A. Chavarria, Paulsson Geophysical Services (VSP 2.2) [6]*

9:20 AM ... Velocity calibration and wavefield decomposition for walkover VSP data—Markus von Steht and Juergen Mann*, U of Karlsruhe (VSP 2.3) [4]*

9:45 AM ... Local migration with extrapolated VSP Green's functions—Xiang Xiao and Gerard T. Schuster, U of Utah (VSP 2.4) [3]*

10:10 AM . VSP data-referenced-only migration without overburden—Ruiqing He*, Martin Karrenbach, and Bjorn Paulsson, Paulsson Geophysical Services (VSP 2.5) [6]*

10:35 AM . Application of virtual source technology to the Zuidwending Gas Storage Project—J. Ferrandis*, A. Mateeva, P. Jorgensen, J. Lopez, Shell Int'l E&P; H. Dijkerman, Shell E&P Europe (VSP 2.6) [3]*

11 AM..... Estimating interval shear-wave splitting from multicomponent virtual shear checkshots—Andrey Bakulin and Albena Mateeva*, Shell Int'l E&P (VSP 2.7) [3]*

11:25 AM.. Velocity analysis for VSP data using multiples—D. Nasyrov*, St. Petersburg State U; D. Kiyashchenko, Shell Int'l E&P; Y. Kiselev, B. Kashtan, and V. Troyan, St. Petersburg State U (VSP 2.8) [3]*

NOTES:

Workshop Schedule ➤ Thursday, 13 November

Workshops

➤ *Convention workshops are offered on Thursday and Friday after the Technical Session closes. Thirteen workshops are scheduled for Thursday afternoon and Friday. Thursday afternoon workshops will begin at 1:30 p.m., and Friday workshops will begin at 8:30 a.m. Admission to the workshops is US$65 for Annual Meeting registrants. The workshop fee for those not registered as full delegates is US$110. Students are admitted free with their "Student" badge. To register for the workshops before Thursday, complete the form available in the Registration Area in the Mandalay Bay Convention Center. On Thursday afternoon and Friday morning, there will be a workshop registration booth in the Registration Area on Level 2 of the Mandalay Bay Convention Center.*

Thursday, 13 November

➤ W-1 Best of the D&P Forum

Time: 1:30–5 p.m.
Room: Mandalay Bay Ballroom K
Organizers: Bob Hardage and Michael Payne
Through the support of the Development and Production Committee

The theme of the 2008 D&P Forum, **"The Role of Scaling and Uncertainty in Reservoir Characterization,"** was chosen after polling the committee membership about topics that need to be addressed to improve the quality and breadth of reservoir characterization. The D&P Forum is unique among SEG's workshops and forums in that it seeks to have a balanced attendance from reservoir engineers, geologists, petrophysicists, and geophysicists. The planning committee for the 2008 forum is structured with this multidisciplinary concept in mind—a reservoir engineer, a geologist, a rock physicist, and two geophysicists. The 2008 D&P Forum was held 27-31 July in Austin, USA. Each attendee was encouraged to present a paper or poster. The best presentations from the Forum will be given during this workshop.

Thursday, 13 November

➤ W-2 Interpreting depth-imaged data: Case studies, examples, and pitfalls from the interpreter's perspective

Time: 1:30–5 p.m.
Room: Surf D
Organizers: Gary Lewis, David H. Johnston, and Jim DiSiena
Through the support of the Interpretation Committee

The use of depth data has increased significantly over the past decade, becoming a central tool for exploring and developing hydrocarbon accumulations in a variety of image-challenged environments. Much depth-imaging literature has focused on imaging algorithms and the technology behind estimating velocities. However, there has been much less discussion of the interpretation issues associated with depth data. These include special techniques for interpreting surfaces to be used in velocity estimation and velocity model construction; the use of attributes (including amplitude and amplitude with offset) extracted from depth data and the related problem of calculating or compensating for illumination effects caused by complex velocity fields; and the problem of conversion from seismic to well depth. This workshop will focus on these interpretation issues. Papers, posters, and a panel discussion will address the application of 3D depth-imaged seismic data to solve real-world interpretation problems.

Thursday, 13 November

➤ W-3 Mentoring geophysicists in the mining industry

Time: 1:30–5 p.m.
Room: Surf F
Organizers: Ken Witherly and Richard Smith
Through the support of the Mining and Geothermal Committee

In the next decade, the minerals exploration industry will see the combined effects of a number of major events to an industry which in many ways remained unchanged since the mid-20th century. Four of the major forces at work are:

1) New graduates are likely to be in chronic short supply over the next 10 years
2) The departure of the baby boomers from the industry. This phenomenon will not be as abrupt as in the extractive side of mining, as many geoscientists are capable & willing to work well past the normal retirement age, but the effect will nevertheless be significant and permanent.
3) A changing attitude to exploration by the mega-miners where the importance of single deposits means far less than 10 years ago.
4) Predictions of commodity "supercycle" over the next 10+ years will keep pressures on all aspects of the industry.

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Workshops

This workshop will be a panel discussion format. Panelists will relate some anecdotes about how they were attracted into the industry; what sustained them through their early years; and describe how someone acted (or perhaps did not act) as a mentor to them. Suggestions for what a recent recruit requires will also be discussed. Input from the floor will also be encouraged.

The workshop will also include a discussion about what we as individuals can do to help the situation. Can we harness the power of the Internet in some way to assist us in dealing with this issue? Ideas about what we can do collectively under the umbrella of the SEG will also be solicited and discussed.

Thursday, 13 November

➤ W-4 Integration of multiscale data: Upscaling and data fusion

Time: 1:30–5 p.m.
Room: Mandalay Bay Ballroom L
Organizers: Partha Routh, Ian (Zhiyi) Zhang, and Cynthia Xue
Through the support of the Research Committee

Reservoir characterization requires integration of a variety of data sets at different scales e.g., seismic, EM, well logs, core, pressure, and geological information. The objective is to bring together geophysicists, petrophysicists, geologists, and engineers to share experiences, and discuss issues arising in this integration process and possible ways to solve those issues. Some of the open questions include:

- What are the current "best" practices? What are the challenges and where are the gaps? How to fill the gaps? Have any advanced measurements been able to fill the gap of multiscale data integration? Or are there any novel methods that can integrate reservoir information obtained from data at different scales?
- How are multiscale data types handled such as seismic and EM, seismic and geomechanics, seismic and reservoir simulation?
- When the reservoir heterogeneity is at different scale, pursuing the properties of individual sand-shale layers may be economically prohibitive and technically infeasible. What are the optimal methods that can effectively integrate the multiscale physical property information to improve prediction and reduce risk?
- How are the uncertainties in the data sets handled in the context of integration process such as in upscaling procedures, joint inversions, and geostatistics?

Thursday, 13 November

➤ W-5 Ocean-bottom geophysics

Time: 1:30–5 p.m.
Room: Surf E
Organizers: Norm Allegar, Ian McMillan, Ken Green, and Svein Ellingsrud
Through the support of the Research Committee

The use of ocean bottom marine technology has brought geophysics closer to the reservoir. The technologies include marine electromagnetics, 4-C nodal seismic, 4-C ocean bottom cables and seabed gravity. Marine electromagnetics (CSEM) has proven its value as a direct hydrocarbon indicator (DHI), as a structural reconnaissance tool, and most recently as method to characterize the reservoir. Four-component nodal and cable based seismic has shown greatly improved data quality even in early acquisition systems. Ocean bottom seismic data in general have yielded improved imaging, especially in areas of complex bathymetry, and have shown promise as reservoir monitoring tools.

This workshop will explore both the technical and business benefits of ocean bottom geophysical measurements. Recent technology advances and case histories will be discussed and highlight where ocean bottom measurements contribute to the overall exploration and appraisal stages.

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Workshops

Thursday, 13 November

➤ W-6 Uncertainty analysis in geophysical imaging, estimation, and inverse problems

Time: 1:30–5 p.m.
Room: Reef C
Organizers: David Lumley and Eldad Haber
Through the support of the Research Committee

Errors in the input data and parameters to geophysical imaging, estimation, and inverse methods lead to uncertainty in the resulting images and estimates. This workshop plans to address theoretical, computational, and practical approaches to quantify the input errors and explore the space of uncertainty in the geophysical results.

For example, uncertainty in a seismic velocity model can cause large variability in the resulting seismic image—but this is rarely quantified or explored. What can be done to explore and quantify the image uncertainty? Which parts of the image are more reliable than others? How far could the events move and amplitudes change given the known uncertainty range in the velocity model? Can we generate a PDF-movie of the image as a function of velocity error to quantify the image uncertainty? Are there other approaches?

Presentations will include a wide variety of geophysical applications of interest, including 3D seismic structural uncertainty, velocity-tomography uncertainty, nonlinear DC resistivity inversion, 4D seismic pressure-saturation inversion, particle swarm optimization, and funnel-function uncertainty and resolution analysis.

Thursday, 13 November

➤ W-7 Gravity in motion

Time: 1:30–5 p.m.
Room: Mandalay Bay Ballroom I
Organizers: John Lumley and Ed Biegert
Through the support of the Gravity and Magnetics Committee

This workshop will focus on all aspects of moving platform (satellite, airborne, marine, borehole) high-resolution potential-field measurements and on their integrated interpretation. The goal of the workshop is to address the utility of the techniques, and throughout to keep in mind the establishment of a set of responses to the questions "Why should I use these techniques and how do they really benefit the exploration process?" The workshop will cover a broad subject area ranging from an analysis of noise in current state-of-the-art instrumentation, to the processing of real data and of case studies involving the interpretation and integration of real processed data. Contributions will address the implied subject matter, the following being a nonexhaustive list of topics.

- potential-field theory, the use of consistent terminology and units
- noise–how it gets into the measurements, how best to represent it
- comparison of moving platform gravimetry and gravity gradiometry
- resolution and detectability, and appropriate measures thereof
- data acquisition, survey planning, additional complementary data sets
- processing techniques, noise reduction, use of complementary data sets
- interpretation techniques utilizing complementary and other data sets
- case histories of integrated interpretations

The workshop is designed to be highly interactive with significant time set aside for Q&A.

NOTES:

Workshops

Friday, 14 November

➤ W-8 The state of the science in the use of seismic methods for mineral exploration

Time: 8:30 a.m.–5 p.m.
Room: Surf D
Organizers: Anton Kepic, Bernd Milkereit, and Milovan Urosevic
Through the support of the Mining and Geothermal Committee

The application of seismic in hard rock environments is growing. Currently, several big 3D surveys are being planned or acquired to assist in exploring for nickel and to a lesser extent gold, base metals, and iron ore. One of the objectives is using the seismic data to directly target drilling. Seismic has already been used successfully when searching for gold. When used in conjunction with other geophysical data, seismic reflection data can reduce the drilling risk when searching for mineral deposits.

The application of seismic for coal, potash, and oil sands mining is at very advanced stage. For example, 3D surface seismic data for coal exploration can be successfully used to directly estimate the geophysical strata rating.

Papers were solicited that discuss the application of (3D) seismic methods for mineral (and coal) exploration and describe research on issues that will improve the application of seismic methods (the use of VSP, wire-line logging, crooked line processing, surveys around open pits, acquisition in noisy environments like mine sites, etc.).

Friday, 14 November

➤ W-9 Adaptive cancellation of noise

Time: 8:30 a.m.–5 p.m.
Room: Surf F
Organizers: Warren Ross and Eric Verschuur
Through the support of the Research Committee

Purpose: Explore various methods of adaptively removing noise from seismic data, given a prediction of the noise. Identify state-of-the-art and outstanding problems.

Motivation: Very accurate methods exist for prediction of certain types of noise in seismic data, in particular seismic multiples. Currently, data-driven and wave-equation methods are often used to predict multiples in 3D seismic data in a full 3D fashion. However, even with increasingly accurate predictions, the predicted noise must be adapted to some extent to the noise in the data. This is most typically accomplished by local least-squares filtering, often called adaptive subtraction. Adaptive subtraction is one of the key frontiers in data-driven noise removal (along with interpolation and regularization). The workshop will capture ideas from leading researchers in the field on adaptive subtraction, and more generally, methods of adapting any prediction of noise in seismic data to the noise in the data itself. These methods could be linear or nonlinear, involve local or global optimization, etc. Furthermore, it is thought that the emphasis should be on the optimality of the method and not on computational efficiency, because that latter is a moving target with increasing speed and parallelization of computers.

Friday, 14 November

➤ W-10 Unconventional time-lapse geophysics

Time: 8:30 a.m.–12 p.m.
Room: Mandalay Bay Ballroom K
Organizing committee: Cengiz Esmersoy, David Lumley, Partha Routh, Sergio Chavez-Perez, and Michel Verliac
Through the support of the Research Committee

Time-lapse seismic is now an established technology for monitoring offshore clastic reservoirs. We have seen numerous outstanding results from the North Sea and other areas of the world in the past 10+ years.

Active-source time-lapse seismic is not the only tool that the reservoir geophysicist may consider. Unconventional applications of time-lapse measurements in oilfield, environmental monitoring, and groundwater problems are increasingly gaining importance. Time-lapse monitoring techniques like gravity, passive seismic, EM surveys, cross-well surveys, and ground deformation surveys can provide efficient and often affordable tools for specific monitoring applications.

The goal of this workshop is to show examples of unconventional approaches to time-lapse geophysics and the associated monitoring applications. Case studies, successful or not, are expected to open the floor for discussion of lessons learned, new applications, and needs and gaps. In addition, we will cover topics that look at fundamentally different approaches such as interferometry and novel inversion techniques to solve the time-lapse problem.

We will set the stage with several keynote presentations covering the main themes: gravity, EM, ground deformation, and unconventional seismic. Posters during a dedicated break will expand on these and offer opportunities for more detailed discussions. A final discussion with the audience will try to identify key points to address future challenges.

Workshops

Friday, 14 November

➤ W-11 Advanced velocity model building techniques for depth imaging

Time: 8:30 a.m.–5 p.m.
Room: Mandalay Bay Ballroom I
Organizers: Bin Wang, Henri Houllevigue, and Jim Gaiser
Through the support of the Research Committee

Ray-based tomography using kinematic residual moveout (RMO) picking has been the industry standard practice to derive a velocity model for depth imaging, and generally yields good results. This method, however, tends to break down when there is a need to resolve high-wavenumber velocity anomalies such as shallow sand channels or gas clouds. Full waveform inversion, which uses both kinematic as well as dynamic information, has the potential to resolve those anomalies, and has become computationally feasible due to the advancement of computer technology. Velocity analysis based directly on wave equation, both one-way and two-way, could also drive the industry toward more fully automated velocity model-building processes.

In salt prone areas, such as the Gulf of Mexico, the standard velocity model-building flow consisting of sediment flood and salt flood has been effective for relatively simple salt bodies. However, in complex salt provinces with multiple salt bodies of complicated geometry such as Christmas tree-like overhangs, the standard iterative flow is not efficient. The industry is looking for more effective and efficient ways to build or refine these challenging salt models. One such new approach is interpretation-driven, interactive model building using fast migration algorithms such as interactive beam migration. This methodology enables quickly testing different salt interpretation scenarios, and deriving a more accurate salt model.

Another area with rapidly advancing technology is anisotropic velocity model building. Industry has been developing practical ways for anisotropic parameter estimation. This has proven to have a great impact on the final prestack depth migration image both in terms of the accuracy of positioning and better focusing of the image as well.

The standard workflow for velocity model building has become increasingly inadequate to handle wide azimuth data. Techniques need to be developed and refined to be able to derive a good velocity model that is able to take advantage of rich azimuth information.

With the more expensive and accurate reverse time migration (RTM) gradually becoming a routine production migration tool, the standard workflow for velocity model building may also need to be modified to derive a better and RTM-consistent velocity model that is able to fully utilize the potential strength of RTM.

Friday, 14 November

➤ W-12 Induced polarization: Research and recent advances in near-surface applications

Time: 8:30 a.m.–5 p.m.
Room: Surf E
Organizers: Esben Auken, Douglas J. LaBrecque, Lee Slater
Through the support of the Near Surface Geophysics Section and Environmental and Engineering Geophysical Society

Scientists and engineers will come together to share research and application of induced polarization (IP) to near-surface applications including environmental, hydrological, and engineering applications such as infrastructure assessment. The workshop will begin with a short historical/tutorial discussion of IP, followed by technical talks on:

1) Recent research in IP data acquisition
2) Rock properties, theory and laboratory studies of IP
3) Inverse modeling and imaging of IP data
4) Near-surface applications of IP

Conclude with a discussion and summary.

NOTES:

Workshops

Friday, 14 November

➤ ***W-13 High-performance computing in oil and gas: Technical directions and operations issues***

Time: 8:30 a.m.–5 p.m.
Room: Mandalay Bay Ballrooom L
Organizers: Keith Gray, Jan Odegard, Henri Calandra, Chap Wong, Tom McClure, Ebb Pye, and Scott Morton

This workshop will focus on the advances being made in the computing industry, how they are being implemented in oil and gas, and the operational issues that must be addressed in managing an HPC environment.

Henri Calandra and Scott Morton are organizing this workshop on the application of high-performance computing to geoscience problems. We are coordinating topics to minimize overlap and present a more complete view of our industry.

The following topics will be discussed:

1: Review of current activity in oil and gas companies and seismic contractors. HPC managers will discuss their current systems and coming challenges.

2: Technology directions. Presentations from the technology leaders in the high-performance computing industry. If possible, we will encourage joint presentations with vendors and customers reviewing their work.

3. Operations issues. Systems administrators will discuss cluster management requirements, facilities managers will discuss challenges meeting growing power and cooling requirements.

Conclude with a panel discussion in which the audience can address questions to the presenters.

NOTES: