

70th European Association of Geoscientists and Engineers Conference and Exhibition 2008

Leveraging Technology

Incorporating SPE EUROPEC 2008

**Rome, Italy
9-12 June 2008**

Volume 1 of 6

ISBN: 978-1-60560-474-9

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2008) by the European Association of Geoscientists & Engineers
All rights reserved.

Printed by Curran Associates, Inc. (2008)

For permission requests, please contact by the European Association of Geoscientists & Engineers
at the address below.

EAGE
PO Box 59
3990 DB Houten
The Netherlands

Phone: +31 88 995 5055
Fax: +31 30 634 3524

eage@eage.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Volume 1

Thermal and Thermo-chronological Constraints to the Southern Apennines Evolution, Italy	1
<i>C. Invernizzi</i>	
Structural, Morphotectonic and Thermo-Chronological Constraints to the Late Miocene-Quaternary Tectonic Evolution and Exhumation in the Southern Apennines, Italy	6
<i>S. Mazzoli</i>	
Thermochronological Evolution of the Northern Apennines	11
<i>M.L. Balestrieri</i>	
Relation between Diagenetic Evolution and Tectonic Regimes in Thrust-Fold Belt – The Calcarei Grigi Group, Jurassic, Asiago Plateau, Northern Italy	15
<i>A. Ceriani</i>	
Thermo-kinematic Modelling and Organic Matter Maturity Analysis of the Alpine Rifting in the Southern Alps, N. Italy	20
<i>D. Scrocca</i>	
Thermal Modelling of the Extensional Mesozoic Succession of the Southern Alps and Implications for Oil Exploration in the Po Plain Foredeep	25
<i>P. Scotti</i>	
Thermal Conductivity of Sedimentary Rocks and Appropriate Corrections for In-situ Conditions	30
<i>V. Pasquale</i>	
Automated Thermotectonostratigraphic Reconstruction of Sedimentary Basins in Frontier Areas	35
<i>L.H. Rupke</i>	
Diagenetic Evolution and Distribution of Dolomite Bodies in a Partially Dolomitised Sequence - The Calcarei Grigi Group	40
<i>R. Di Cuia</i>	
Insights on the Evolution of Oligocene-miocene Carbonate Buildups from 3D Seismic Data, East Java Basin, Indonesia (Best of AAPG)	45
<i>A.S. Ruf</i>	
Three-dimensional Seismic- and Sequence-stratigraphic Framework of a Lower Cretaceous, Aptian, Supergiant Carbonate Field in Onshore Abu Dhabi (Best of Shu'aiba)	47
<i>L.A. Yose</i>	
Definition and Distribution of the Bab Sequence – The Last Upper Aptian Shu'aiba Sequence in the Bab Basin (Best of Shu'aiba)	50
<i>B.J. Pierson</i>	
Regional Depositional History and Stratigraphy of the Shu'aiba Formation in the Middle East (Best of Shu'aiba)	52
<i>H. Droste</i>	

Pore Geometry as an Indicator of Depositional Texture and Velocity Variations in Chalks.....	54
<i>M.R. Saberi</i>	
Fluid-Escape Features Due to Silica Diagenesis in the Faeroe-Shetland Basin.....	59
<i>N.R. Goult</i>	
Shale Dependent Sediment Compaction - Is There a Global Porosity Relationship? Scanning of Parameters in Wells	64
<i>A.E. Lothe</i>	
Subsurface Geometries in Central Sicily FTB as a Premise for Hydrocarbon Exploration	69
<i>R. Catalano</i>	
Overview of the Italy's Petroleum Systems and Related Oil and Gas Occurrences.....	74
<i>F. Bertello</i>	
Nuclear Magnetic Resonance and Data Integration in Murzuq Basin, Libya - Case Study.....	79
<i>J. Dessay</i>	
The Main Tectono-sedimentary Domains of the Pyrenees.....	84
<i>J.J. Biteau</i>	
Hydrocarbon Bitumen in Deepwater Gulf of Mexico - An Integrated Petroleum Systems and Engineering Perspective.....	89
<i>J. Huang</i>	
Tectonic Heat Flow Models - Workflow and Cases	94
<i>H.J.M. Verweij</i>	
Isotopic Signature of Nitrogen - An Indicator for Timing N₂ Generation and N₂ Charging of Dutch Natural Gas Accumulations	99
<i>J.M. Verweij</i>	
Exploring in the Utah Hinge Line Using a Multi-Disciplinary Approach	104
<i>J. Barraud</i>	
De Ruyter Field, Netherlands - Discovery and Near-Field Exploration	109
<i>F. Blom</i>	
High-grading the Prospect Portfolio with Latest Technology - Impact on Southern Permian Basin	114
<i>M. Bruehl</i>	
Reservoir Characterization and Palaeo-environmental Reconstructions of Upper Carboniferous Strata in the Cleaver Bank High Area.....	119
<i>O.A. Abbink</i>	
An Evaluation of the Petroleum System - Offshore Morondava Basin, Madagascar, Based on 2D Seismic Data Interpretation.....	123
<i>M.S. Tamannai</i>	
An Integrated 3D Seismic Analysis and Potential Fields Inversion Reveal a TBR Analog for the Dnieper-Donets Basin	128
<i>O.P. Petrovsky</i>	
HC Bearing Area in the Eastern Part of the Ukrainian Black Sea	133
<i>S.N. Stovba</i>	
Digital Point Receiver Seismic Acquisition and Pre-stack Reservoir Characterization at Sulige Gas Field, China	138
<i>M.C. Li</i>	
Effect of Zechstein Supergroup (Z1 Cycle) Werrahalit Pods on Prospectivity in the Southern North Sea.....	143
<i>J.R. Underhill</i>	

Complex Fractured Carbonate Reservoir Potentials - The Impact of Detailed Structural Analysis - The Example of the Maiella	148
<i>R. Di Cuia</i>	
Structural and Sedimentological Evolution of the Ultra-deep Gas Play Fairway - Gulf of Mexico Shelf, Texas and Louisiana (Best of AAPG)	153
<i>C.L. Farmer</i>	
The Influence of Tectonics on Temporal and Spatial Variations in Sandbody Architecture – Cretaceous Gosau Basin, Western Calcareous Alp, Austria (Best of AAPG)	155
<i>D. Paton</i>	
Outcrop Characterisation of Turbidite Reservoir Analogues Deformed by Fluidisation - Implications for Reservoir Models	157
<i>A. Scott</i>	
Application of Structural Analogs to Enhance Understanding of Tectonically Inverted Settings (Best of AAPG)	162
<i>D.J. Reynolds</i>	
How Do Relay Ramps Influence Sedimentation in Rift Settings? A Study Combining Sandbox and Numerical Experiments	164
<i>W. Athmer</i>	
Experimental Investigation of Clay Smear During Fault Formation	169
<i>F.D.E. Cuisiat</i>	
3D Geological and Seismic Forward Modeling of a Sinuous Slope Channel Complex, Brushy Canyon Formation, West Texas (Best of AAPG)	174
<i>M. Tomasso</i>	
Multisource Data Integration and 3D Digital Outcrop Visualization Environment - From Virtual Geology to Subsurface Models	176
<i>N. Lisi</i>	
High Resolution 3D Mechanical Earth Model Using Seismic Neural Netmodeling - Integrating Geological, Petrophysical and Ge	181
<i>A.S. Wendt</i>	
A Software Agent Based Tool for Generating and Validating Structural Interpretations	186
<i>B. Zhu</i>	
A Genetic Algorithm for Optimal Blocking of Well Logs	191
<i>P. Thore</i>	
M-GS - New Spatial Estimation and Simulation Models for More Precision and More Realism	196
<i>C. Magneron</i>	
Earth Recursion, an Important Component in Shared Earth Model Builders	201
<i>S.A. Petersen</i>	
Complex Volcanic Reservoir Characterization - A Case Study for Southern Songliao Basin, Northeast China	206
<i>S. Yang</i>	
Sensor Technology Comparison Method and Case Study, Part I	212
<i>D. Yu</i>	
Laboratory Comparison of the Performance of Analog Geophones and MEMS Accelerometers	217
<i>G. Hauer</i>	
Accelerometer Versus Geophone Response - A Field Case History	222
<i>M.S. Hons</i>	

Electronic Gimballed Geophones for Ocean Bottom Seismic Systems	227
<i>T. Buettgenbach</i>	
Vibrator Data Quality Prediction from Remote Sensing-Based Near-Surface Analysis.....	232
<i>A. Cutts</i>	
Reducing Harmonic Distortion on Vibrators - Stiffening the Vibrator Baseplate	237
<i>Z. Wei</i>	
Independent Simultaneous Sweeping	243
<i>D. Howe</i>	
Simultaneous Sourcing without Compromise	248
<i>C.E. Krohn</i>	
Converted-wave Imaging in the Caspian Sea - A View of Mud Volcanoes	253
<i>R.G.K. Johnston</i>	
Improved Imaging Using Ocean Bottom Seismic in the Snøhvit Field	259
<i>G. Ronholt</i>	
Using 3D4C Data to Image and Interpret the Seismically Obscured Area over the Tommeliten Alpha Discovery	264
<i>G. Iversen</i>	
Depth Imaging beneath a Seismic Obscured Area (SOA) and Analyzing Its Character - Eldfisk Field Experience.....	269
<i>O. Knoth</i>	
Unconventional 3D Seismic Land Acquisition in Abu Dhabi	274
<i>G. Ajlani</i>	
Field Test of the Point Receiver Land Acquisition Technology Performed in Timimoun, Algeria.....	279
<i>J.-M. Mougnot</i>	
Comparison of Conventional Geophones Versus Digital Sensor - Preliminary Results from 2D Field Test Exercise.....	284
<i>F. Mancini</i>	
Enhancing the Low-frequency Content of Vibroseis Acquisition - A Case History from the Minagish Field.....	289
<i>C. Bagaini</i>	
Utilizing Multi-azimuth Streamer Data for Reservoir Characterization and Uncertainty Analysis in the Nile Delta	294
<i>R. Marten</i>	
Instantaneous Isochrons, Volume-flattening and a High Resolution View of Sedimentation Rate.....	299
<i>J.E. Rickett</i>	
High Frequencies Attenuation and Low Frequency Shadows in Seismic Data Caused by Gas Chimneys, Onshore Ecuador	304
<i>F.G.C. Brouwer</i>	
Automated Geomodelling a Nigeria Case Study	309
<i>R. Gupta</i>	
The Identification and Extraction of 3D Diagenetic Geobodies from Carbonate Reservoirs Using Image Processing Techniques	314
<i>G. Fisher</i>	
Gleaning Meaningful Information from Seismic Attributes	319
<i>S. Chopra</i>	
Volume Blending with Directional Seismic Attributes	324
<i>A.E. Barnes</i>	

An Approach of Seismic Interpretation Based on Cognitive Vision	329
<i>P. Verney</i>	
Fundamental Principles of Isotropic Marine Source Design.....	334
<i>J. Hopperstad</i>	
Are Seismic Sources Too Loud?.....	339
<i>R.M. Laws</i>	
Using Onboard Time Lapse Processing for Quality Control of Time Lapse Acquisition on the Norne Fields.....	344
<i>B. Osdal</i>	
Improved Marine 4D Repeatability Using an Automated Vessel, Source and Receiver Positioning System.....	349
<i>J.O. Paulsen</i>	
Benefits of Two-boat 4D Acquisition - An Australian Case Study.....	354
<i>T.A. Ridsdill-Smith</i>	
The Concept of Triple Over/Under Streamer Data Acquisition and Processing	359
<i>R.-G. Ferber</i>	
GeoStreamer, a Dual-sensor Towed Marine Streamer.....	364
<i>R. Tenghamn</i>	
Wave-Height-Corrected Seismic Data.....	369
<i>R.J. Goto</i>	
Barque Pre-SDM - Shallow Initial Geological Model Building, and Impact on Deep Reservoir Imaging.....	374
<i>R. Wervelman</i>	
Data Driven Velocity Model Building - An Application to Egypt Nile Delta.....	379
<i>M.C. Tanis</i>	
Complex Imaging Challenges - Offshore South East India	384
<i>I.F. Jones</i>	
CRS-PreSTM/CRS-PreSDM - Noise Reduction in Seismic Imaging.....	389
<i>H. Trappe</i>	
Staged Subsalt Derisking for Development of the Cleaver Bank High	394
<i>R. van Boom</i>	
Azimuthal Anisotropy Correction in Champion West 3D Survey - A Case Study.....	399
<i>J. Sun</i>	
Increased Resolution of Seismic Data from a Dual-Sensor Streamer Cable.....	404
<i>D.H. Carlson</i>	
Deepwater Gulf of Mexico - Benefits of Integrating Seismic, Gravity and Magnetic Data in a Sub-Salt Environment	409
<i>A.G. Blacque</i>	
Microseismicity of Non-Linear Fluid-Rock Interactions - From Geothermic Stimulations to Fracturing of Barnett Shales.....	414
<i>S.A. Shapiro</i>	
Nonlinear Pore Pressure Diffusion and Associated Microseismicity in Rocks with Pressure-Dependent Permeability	419
<i>T.M. Mueller</i>	
Evidence of Hydraulic Fracture Reorientation Across a Thrust Fault	424
<i>S.C. Maxwell</i>	
Microseismic Features of Gel and Water Fracturing of Tight Gas Reservoirs.....	429
<i>C. Dinske</i>	

Case Studies on 2D- and 3D-Time Reverse Modeling of Low-frequency Microtremors - Application to Reservoir Localization	434
<i>B. Steiner</i>	
A Low Frequency, Passive Seismic Experiment over a Carbonate Reservoir in Abu Dhabi – Wavefront and Particle Motion Studi	439
<i>K.A. Berteussen</i>	
Seismic Spectroscopy Using Amplified 3C Geophones.....	445
<i>P. van Mastrigt</i>	
Location of and Monitoring with Induced Earthquakes in Oil and Gas Fields	450
<i>S. Sarkar</i>	
Dumbarton Field, UKCS – Rapid Redevelopment of a Complex, Mature North Sea Asset Using New Rotary Steerable and Geosteering Technologies	455
<i>U. John</i>	
Reservoir Compartmentalisation in the JG Field – Western Desert Egypt.....	467
<i>E. Hoogerduijn Strating</i>	
Seeking the Ultimate Field Development Using the Well Maturity Index	474
<i>H. Kloosterman</i>	
How to Optimise Oil Recovery after Almost 60 Years of Production from the Matzen Field, Austria	483
<i>S. Poellitzer</i>	
Using Monobore Systems to Lower Completion Costs in Short-Life Wells	494
<i>W. Chapman</i>	
A Global Gas Distribution Model with Transport Constraints - Methodology and Some Scenarios	502
<i>J. van Berkel</i>	
The Kitina Mature Offshore Field Rejuvenation – Massive Multistage Hydraulic Fracturing, Long Reach Wells, Improved Oil Recovery Techniques.....	518
<i>L. Tealdi</i>	
Recent Advances and Practical Applications of Integrated Production Modeling	535
<i>U. Ozdogan</i>	
Beyond the Damkohler Number - A New Interpretation of Carbonate Wormholing	546
<i>M. Talbot</i>	
Optimization of Completion Interval to Minimize Water Coning.....	556
<i>M. Tabatabaei</i>	
Pore Space Characterisation and Permeability Prediction Using Fast Network Extraction and Pore Throat Conductance Calculation	569
<i>G. Schena</i>	
Optimized Recovery from the Fram East Field through Extreme Well Design.....	581
<i>A. Thorsen</i>	
Emulsion Deposition in Porous Media - Impact on Well Injectivity	597
<i>S. Buret</i>	
Pore Network Modeling of Two Phase Flow in Vuggy Carbonates	606
<i>S. Akin</i>	
Behavior of Flow through Low-Permeability Reservoirs.....	617
<i>Y.S. Wu</i>	
Parallel Streamline Simulation	625
<i>H. Loef</i>	

Control-Relevant Upscaling	634
<i>J.D. Jansen</i>	
Vorticity-Based PEBI Grids for Improved Upscaling of Two Phase Flow	647
<i>H. Mahani</i>	

Volume 2

How to Extend the C7 Plus Fraction for Gas Condensate Systems for Use in Compositional Simulation	668
<i>R. Hosein</i>	
Formulation and Implementation of Three-level Spatial and Temporal Mesh in Multiscale Simulation of Two-Phase Immiscible Flow	679
<i>S. Atan</i>	
Modeling Coupled Fluid Flow and Deformation of Fractured Reservoirs Using Full Tensor Permeability	688
<i>A. Settari</i>	
Method to Preliminary Estimation of the Reserves and Production Forecast for Dual Porosity Fractured Reservoirs	706
<i>B. Pirker</i>	
A New Flow Skin Factor Formulation for Hydraulically Fractured Wells in Gas Condensate Reservoirs	716
<i>M. Jamiolahmady</i>	
Multiscale Multiphysics Compositional Modeling in Naturally Fractured Reservoirs	735
<i>B. Ramirez</i>	
Impact of Multilateral Wells on Oil Recovery in an Oil Rim Field Development Using Multilateral Wells with Natural Gas Lift and Inflow Control Devices in a Fractured Carbonate Reservoir	746
<i>C. Coll</i>	
Matrix-fracture Transfer Function in Dual-media Flow Simulation - Review, Comparison and Validation	756
<i>O. Gosselin</i>	
Distributed Unstructured Grid Infrastructure for Complex Reservoir Simulation	782
<i>L. Fung</i>	
Modelling Flow Along Fault Damage Zones in a Sandstone Reservoir - An Unconventional Modelling Technique Using Conventional Modelling Tools in the Douglas Field, Irish Sea, UK	792
<i>M. Bentley</i>	
Optimum Economic Developments of Mature Eastern European Oil Fields - A Case Study	806
<i>M. Fellner</i>	
Real-Option Stage and Gate Process - Whether and When to Invest	820
<i>T. Bruni</i>	
Bidding Schemes and Their Impacts on Risk Assessments by Oil Companies	829
<i>M. Rodriguez</i>	
Evaluation of Confidence Intervals in Well Test Interpretation Results	837
<i>A. Gringarten</i>	
The Art of Mentoring as Told by Both Sides of the Three Decade Old Struggle in the Petroleum Industry	847
<i>J. Edwards</i>	

Accelerating the Build Up of Experience with a View to the Imminent Big Crew Change	852
<i>C. Bos</i>	
Using Accelerated Learning to Enhance HS&E Skills Training	860
<i>P. Kight</i>	
Over 100 Conformance Fracturing Operations in Brazil - Results and Improvements.....	869
<i>R.C. De Melo</i>	
Enhanced Reservoir Contact Using New LWD Technology in Thin Channel Sands.....	878
<i>P. Butt</i>	
Monetizing Gas - Focusing on Developments in Gas Hydrate as a Mode of Gas Transportation.....	892
<i>J. Rajnauth</i>	
Oil and Gas Expertise for Geothermal Exploitation - The Need for Technology Transfer	900
<i>G. Falcone</i>	
Optimisation of Well Placement Using Evolutionary Methods	915
<i>Y. Ding</i>	
Production Optimisation for Second Stage Field Development Using ICD and Advanced Well Placement Technology	934
<i>D. Maggs</i>	
A New 3-D Numerical Model to Effectively Simulate Injection Tests	946
<i>F. Verga</i>	
HTHP In-situ Mechanical Test Rig and Test Method for High-temperature Polymers and Composites.....	960
<i>Y. Yuan</i>	
The Zatchi B Heavy Oil Reservoir Development – The Unique Challenges of the TAML6 Multilateral Well ZAM-408ML	973
<i>L. Tealdi</i>	
Three-Dimensional Reflection Seismics Surfs the Crest of the Platinum Wave.....	996
<i>J. Trickett</i>	
Geophysical Imaging of a "Blind" Zn-Pb-Ag Deposit	1003
<i>B. Milkereit</i>	
TDEM Method for Hydrothermal Water Prospection.....	1008
<i>A. Menghini</i>	
Statics in Magnetotellurics - Shift or Model?.....	1013
<i>W. Soyer</i>	
The Development of a Multi-purpose Geothermal Site in an Urban Area	1018
<i>K-H.A.A. Wolf</i>	
From Gas to Geothermal Exploration - A Case Study from the NE-German Basin	1023
<i>I. Moeck</i>	
Mapping Geothermal Reservoir Using Broadband 2-D MT Survey in Theistareykir, Iceland.....	1028
<i>G. Yu</i>	
Results of Stimulation Treatments at the Geothermal Research Wells in Groß Schönebeck, Germany	1033
<i>G. Zimmermann</i>	
Quantitative Integration of Seismic and CPT for Soil Property Estimation - Sensitivity Analyses on Field and Lab Data.....	1038
<i>R. Ghose</i>	

Processing Techniques to Extract Surface Wave Dispersion Curve from 3D Seismic Acquisition	1043
<i>L.V. Socco</i>	
Retrieving Lateral Variations from Surface Wave Data	1048
<i>D. Boiero</i>	
Joint Inversion of Seismic Data by Means of Multi-objective Evolutionary Algorithms	1053
<i>G. Dal Moro</i>	
GPR Rock Mass Imaging and Characterization by Attenuation Analysis	1058
<i>E. Forte</i>	
Audio- and Radiomagnetotelluric Investigations of the Area of Railway Tunnel Route	1063
<i>A.K. Saraev</i>	
Multi-disciplinary Approach for the Instability Analysis of a Down-town Site - Case Study	1068
<i>L. Orlando</i>	
Effects of the Relative Humidity on the Crack Growth in Rocks	1073
<i>Y. Nara</i>	
Integrated Approach to 3D Near-surface Characterization	1078
<i>A. Laake</i>	
Multi-layer Near-surface Attenuation Estimation Using Wave Propagation Modelling Including Topography	1083
<i>N. El Yadari</i>	
Can High Resolution Seismic Data Correct for the Near Surface Static's Issue in Saudi Arabia?	1088
<i>T.A. Alkhalifah</i>	
A New Approach for Multimodal Inversion of Rayleigh and Scholte Waves	1093
<i>M. Maraschini</i>	
From 3D Seismic and Resistivity Logs to 3D Porosity - The Case Study of a Near Heterogeneous Aquifer	1098
<i>J.L.O. Mari</i>	
Electrical Resistivity and Seismic Refraction Tomography to Detect Buried Cavities	1103
<i>E. Cardarelli</i>	
Tunnel Seismic Investigations - 3D Imaging	1108
<i>J. Tzavaras</i>	
Applying Geostatistical Filtering to Near-surface Geophysics - Two Field Examples for Refraction and Gravity Surveying	1113
<i>N. Jeanne</i>	
Introduction of OGP Survey and Positioning and the APSG Objectives and Resources	1118
<i>J. Verouden</i>	
Geodesy and Cartography in E&P – A Caution to Skilled Professionals	1123
<i>J. Cain</i>	
Concession and Lease Boundary Delineation	1128
<i>R. Lott</i>	
Geodetic Integrity in Seismic Acquisition and Processing	1133
<i>M. Redford</i>	
Understanding Borehole Surveying	1135
<i>A. Jamieson</i>	
The New EPSG Geodetic Parameter Registry	1136
<i>R. Nicolai</i>	

Data Quality Monitoring	N/A
<i>R.J. Wyld</i>	
Truth or Consequences - Commercial Impact of Geospatial Data Management	1141
<i>J.P. Stigant</i>	
Impact of Fault Rocks on Reservoir Characterisation - Multi-phase Flow Properties for Production Simulation Models	1147
<i>Q. Fisher</i>	
Updating Fault Transmissibilities in Simulations by Successively Adding Data to an Automated Seismic History Matching Processes - A Case Study	1153
<i>N. Edris</i>	
Estimation of Pressure and Saturation Changes from 4D Seismic AVO and Time-Shift Analysis	1163
<i>M. Trani</i>	
Improved Water Saturation Estimation Using Equivalent Rock Element Model and Applications to Different Rock Types	1168
<i>B. Shang</i>	
Stochastic Inversion for Reservoir Properties Using Time-lapse Seismic and Well Production Data	1178
<i>P. Stoffa</i>	
Estimation of 4D Anisotropy above the Elgin Reservoir from 4D Seismic Time Shifts and Compaction Considerations	1183
<i>K. Hawkins</i>	
Fluid Flow Simulations on Core Samples Containing Natural Fractures and Stylolites	1188
<i>R. Basquet</i>	
From Real Time Data to Updated Models - The Challenge of Intelligent Fields Applied to Gas Storage Business	1200
<i>A. Tiani</i>	
Crosswell Electromagnetic Tomography in Saudi Arabia - From Field Surveys to Resistivity Mapping	1215
<i>M. Wilt</i>	
Improved Reservoir Description of the Nelson Field Via Seismic History Matching	1220
<i>A. Kazemi</i>	
History Matching with Time-Lapse Seismic - Will Any Starting Model Do?	1225
<i>N.R. Edris</i>	
History Matching and Flow Rate Optimization of Caratinga Field	1230
<i>K.A. Novaes</i>	
Adding the Temporal Coherence Dimension to 4D Seismic Data - Assessing Connectivity in the Schiehallion Field	1232
<i>M. Floricich</i>	
Integrating 4D Seismic, Geomechanics and Reservoir Simulations in the Elgin and Franklin Fields	1237
<i>S. De Gennaro</i>	
Microgravity Surveys for Field Monitoring	1242
<i>F. Italiano</i>	
Reservoir Management of the Gullfaks Main Field	1247
<i>S. Talukdar</i>	
An Alternative Method in Determining Permeability in Fractured Tight Gas Wells Dominated by Either Linear or Bilinear Flow	1267
<i>R. Hawkes</i>	

Interpretation of an Unusual Bubblepoint Pressure Variation in a Brazilian Field	1282
<i>A. Firoozabadi</i>	
Real-Time Water Detection and Flow Rate Tracking in Vertical and Deviated Intelligent Wells with Pressure Sensors.....	1311
<i>D. Davies</i>	

Volume 3

Selecting an Optimal Field Development Strategy for the Vankor Oilfield Using an Integrated-asset-modeling Approach	1321
<i>D. Antonenko</i>	
An Integrated Methodology to Ensure Operations Readiness in a Complex Project Environment	1329
<i>F.V. Verre</i>	
The Benefits of Integrated Asset Modelling – Lessons Learned from Field Cases	1334
<i>M. Rotondi</i>	
3D Exploration for Remaining Oil Using Historical Production Data	1346
<i>Y. Ling</i>	
A Multidisciplinary Approach Applied to a Mature Field Re-Development, Llanito-Gala Field, Colombia	1351
<i>G. Vanegas Cabas</i>	
4D Seismic Modeling Integrated with the EnKF Method for History Matching of Reservoir Simulation Models.....	1371
<i>M.C. Haverl</i>	
Looking for Earlier Integration - An Application Example.....	1376
<i>F. Pampuri</i>	
Modeling Reservoir Geomechanical Changes Caused by Fluid Injection - A Discrete Element Approach	1393
<i>H.T.I. Alassi</i>	
The Value of Seismic Data in Production History Matching.....	1398
<i>O. Leeuwenburgh</i>	
History Matching of Production Data and 4D Seismic Data on Girassol Field.....	1403
<i>P. Berthet</i>	
Response Surface Methodology Approach for History Matching and Uncertainty Assessment of Reservoir Simulation Models	1408
<i>P.A. Slotte</i>	
Efficient Model Selection Based on Connectivity for Geologically Complex Reservoirs	1418
<i>G. de Jager</i>	
Continuous History Matching a HPHT Gas Condensate Field During the First Two Years of Production	1423
<i>K. Christoffersen</i>	
Influence of Geological Features on Well Test Behavior.....	1434
<i>A. Gringarten</i>	
Effect of Heterogeneity of Layered Reservoirs on Polymer Flooding – An Experimental Approach Using 5-spot Glass Micromodel.....	1445
<i>H. Emami Meybodi</i>	
Associative Polymers for EOR - Towards a Better Understanding and Control of Their Adsorption in Porous Media	1455
<i>D. Rousseau</i>	

Low IFT Gas-oil Gravity Drainage in Fractured Carbonate Porous Media	1460
<i>H. Karimaie</i>	
Oil Recovery from Matrix during CO₂-foam Flooding of Fractured Carbonate Oil Reservoirs	1470
<i>J. Zuta</i>	
Improved Waterflooding - Analytical Screening of Cyclic Parameters	1480
<i>A.A. Shchipanov</i>	
Offshore Chemical EOR - The Role of an Innovative Laboratory Program in Managing Result Uncertainty to Ensure the Success of a Pilot Field Implementation	1485
<i>S. Zainal</i>	
Co-Injection of Seawater and Produced Water to Improve Oil Recovery from Fractured North Sea Chalk Oil Reservoirs	1495
<i>T. Puntervold</i>	
Methodology for Production History Matching of Petroleum Fields Utilizing Logging Saturation Data	1500
<i>C. Grecco</i>	
Deriving Matrix Properties, Fluid Types, and Saturation from RST-CHFR Combination in Siegenien Reservoir of Bir Berkine Field, Algeria	1512
<i>C. Okuku</i>	
Application of Deconvolution and Decline-curve Analysis Methods for Transient Pressure Analysis	1527
<i>S.Y. Zheng</i>	
Modeling the Impacts of Downhole Choking on Wellbore Pressure Profile and Production Fluid Allocations on a Multiple-zone Intelligent Well System	1548
<i>K. Sun</i>	
Non-Darcy Flow - Lab Measurements in Unconsolidated Porous Media	1562
<i>P. Macini</i>	
Velocity Estimation by Waveform Tomography in the Canadian Foothill - A Synthetic Benchmark Study	1577
<i>A.J. Brenders</i>	
Near Surface Void Detection Using Seismic Q-factor Waveform Tomography	1582
<i>B.R. Smithyman</i>	
Waveform Tomography Strategies for Imaging Attenuation Structure with Cross-Hole Data	1587
<i>R. Kamei</i>	
Crosswell Waveform Tomography in Fine-layered Sediments - Meeting the Challenges of Anisotropy	1592
<i>R.G. Pratt</i>	
3D Acoustic Frequency-domain Full Waveform Tomography (FWT) - An Application on SEG/EAGE Overthrust Velocity Model	1597
<i>H. Ben-Hadj-Ali</i>	
3D Frequency Domain Waveform Inversion Using Time Domain Finite Difference Methods	1602
<i>L. Sirgue</i>	
Efficient and Effective 3D Wavefield Tomography	1607
<i>M. Warner</i>	
Asymptotically True-amplitude One-way Wave Equations in t	1612
<i>N. Bleistein</i>	

An Example of Integrated Use of Common Reflection Surface Stack and Pre Stack Depth Migration	1617
<i>E. Gentile</i>	
3D Beam Prestack Depth Migration with Examples from Around the World	1622
<i>K. Schleicher</i>	
Application of Shot-record Mirror Migration in Tilted Coordinates to Salt-model Building at Atlantis	1627
<i>I. Ahmed</i>	
True-amplitude Angle Migration in Complex Media	1632
<i>N. Ettrich</i>	
Prestack Migration in Elliptic Coordinates	1637
<i>J.C. Shragge</i>	
Direct Representation of Complex, High-contrast Velocity Features in Kirchhoff PreSDM Velocity Models	1642
<i>J.W.D. Hobro</i>	
An Application of a Novel Frequency-domain Finite-difference Solver to Compute 3D Amplitude-preserving Migration Weights	1647
<i>C.D. Riyanti</i>	
Adaptive Limitation of the Migration Operator Aperture	1652
<i>M. Alerini</i>	
Seismic Velocity Estimation in the Curvelet Domain	1657
<i>H. Chauris</i>	
Direct Nonlinear Traveltime Inversion in Layered VTI Media	1662
<i>P.J. Fowler</i>	
Wavepath Tomography for Model Building and Hazard Detection	1667
<i>D. Bevc</i>	
Applications of Wave-like Rays for Traveltime Tomography and Depth Imaging	1672
<i>J.K. Washbourne</i>	
Poststack Velocity Analysis in the Dip-angle Domain Using Diffractions	1677
<i>M. Reshet</i>	
Wide-azimuth Tomography - Strategy and Application	1682
<i>T. Huang</i>	
Revisiting PSDM Workflows Using Global Multi-scenario Traveltime Tomography	1687
<i>A. Soudani</i>	
Interactive Imaging - An Effective Way to Build a Better Salt Model	1692
<i>B. Wang</i>	
Two-step Explicit Marching Method for Reverse Time Migration	1697
<i>R. Soubaras</i>	
Hybrid Finite Difference-pseudospectral Method for 3D RTM in TTI Media	1702
<i>A.C. Lesage</i>	
A Hybrid Approach for Efficient Reverse-time Migration Applications	1707
<i>H. Guan</i>	
A High-resolution Vector-imaging Condition for Elastic Reverse-time Migration	1712
<i>H. Denli</i>	
Obliquity Correction for Reverse Time Migration	1717
<i>J.C. Costa</i>	

Construction and Analysis of an Optimized Compact Finite Difference Scheme for RTM	1722
<i>H. Zhou</i>	
Practical Issues of Reverse Time Migration - True-amplitude Gathers, Noise Removal and Harmonic-source Encoding	1727
<i>Y. Zhang</i>	
Reverse Time Migration with Gaussian Beams and Velocity Analysis Applications	1732
<i>M.M. Popov</i>	
Accurate Detection of Reservoir Boundaries Using Electromagnetic Attributes and Inversion of Marine CSEM Data	1737
<i>P. Dell'Aversana</i>	
Characterisation of Anisotropic Resistivity from Marine CSEM Data	1742
<i>C.J. Ramananjaona</i>	
Data Preprocessing and Starting Model Preparation for 3D Inversion of Marine CSEM Surveys	1747
<i>J.J. Zach</i>	
Inversion of CSEM Data with Model-based Inversion Algorithm	1753
<i>A. Abubakar</i>	
Modeling and Migration of Marine CSEM Data in the Areas with the Rough Bathymetry	1758
<i>M.S. Zhdanov</i>	
Inversion of Bathymetrically Distorted CSEM Data - A Case Study from the Baobab Field	1763
<i>M.K.M. Hagdorn</i>	
Marine Controlled Source Electromagnetics (mCSEM) 3D Test over a Known Target	1768
<i>A. Price</i>	
Advancing Marine Controlled Source Electromagnetics in the Santos Basin, Brazil	1773
<i>M.P. Buonora</i>	
Spatial Sampling and Multiple Suppression Properties of Wide-azimuth Towed Streamer Acquisition Geometries	1778
<i>E.J. van Veldhuizen</i>	
Crystal - A Wide Azimuth Towed Streamer Program - Acquisition Design Analysis	1783
<i>E. Fromyr</i>	
Circular Geometry for Wide-Azimuth Towed-Streamer Acquisition	1788
<i>N. Moldoveanu</i>	
The Influence of Acquisition Geometry on Azimuthal Anisotropy Estimation	1793
<i>P.M. Zwartjes</i>	
Leveraging the Value of Multi-azimuth (MAZ) Seismic through MAZ-stack	1798
<i>T. Manning</i>	
Optimizing 3D SRME on Wide Azimuth Data	1804
<i>D. Lin</i>	
Lessons Learned from the First Exploration WATS Data Processing	1809
<i>P. Wijnen</i>	
Seismic Imaging Improvement Thanks to a True Wide-Azimuth Pre-processing Sequence Applied to a 3D OBC Dataset	1814
<i>J.-L. Boelle</i>	
Elastic Interferometry for OBC Data - Theory and Examples	1819
<i>J.E. Gaiser</i>	

Virtual Real Source	1824
<i>J. Behura</i>	
Interferometric Seismic Imaging of Sparsely-Sampled Data	1829
<i>P.C. Sava</i>	
Interpretation of the Estimated Green Function Extracted from Seismic Energy Generated by the North Sea Surf	1834
<i>X.H. Campman</i>	
Imaging Internal Multiples through Seismic Interferometry - Subsalt VSP Examples	1839
<i>I. Vasconcelos</i>	
Seismic Interferometry-by-Deconvolution for Controlled-Source and Passive Data	1844
<i>K. Wapenaar</i>	
Perturbation-based Interferometry - Applications and Connection to Seismic Imaging	1849
<i>I. Vasconcelos</i>	
Effect of Intrinsic Losses on Seismic Interferometry	1854
<i>D. Draganov</i>	
Interpolation of Irregularly Sampled Data by Matching Pursuit	1859
<i>A. Ozbek</i>	
Bandwidth Optimization for Compact Fourier Interpolation	1864
<i>I. Moore</i>	
Sampling Functions and Sparse Reconstruction Methods	1869
<i>M. Naghizadeh</i>	
Seismic Data Regularization in the Presence of Aliased Energy	1874
<i>S. Tegtmeier-Last</i>	
5D Interpolation, PSTM and AVO Inversion for Land Seismic Data	1879
<i>J.E. Downton</i>	
Seismic Data Reconstruction Using Multidimensional Prediction Filters	1884
<i>M. Naghizadeh</i>	
On the Use of Multicomponent Streamer Recordings for Reconstruction of Pressure Wavefields in the Crossline Direction	1889
<i>J.O.A. Robertsson</i>	
Fast Trace Interpolation and Statics Application by Least Squares Inversion	1894
<i>R.J. Ferguson</i>	
On the Estimation of Local Slopes	1899
<i>J. Schleicher</i>	
S-zero Stack, a Robust Way to Extract Density Information from Converted Waves	1904
<i>K. Zou</i>	
Characterization of Subsurface Parameters with Combined Fluid-pressure and Particle-Velocity Measurements	1909
<i>K.N. van Dalen</i>	
Adaptive Groundroll Filtering	1914
<i>D. Le Meur</i>	
Geophone Noise Attenuation and Wave-field Separation Using a Multi-Dimensional Decomposition Technique	1919
<i>K.L. Craft</i>	
PZ Calibration in Shallow Waters - The Britannia OBS Example	1924
<i>S. Grion</i>	

Time-lapse Measurements of Shallow Horizontal Wave Velocity over a Compacting Field	1929
<i>P.B. Wills</i>	
Shallow and Deep Time-lapse Effects on Valhall LoFS Converted Wave Data	1935
<i>P.M. Zwartjes</i>	
Two Pragmatic Approaches for Attenuation of Land Multiples	1940
<i>P.G. Kelamis</i>	
Surface Related Multiple Suppression in Dual-sensor Towed Streamer Data	1945
<i>W. Sollner</i>	
General Surface Multiple Prediction (GSMP) - A Flexible 3D SRME Algorithm	1950
<i>W.H. Dragoset</i>	
Multiple Attenuation on Deepwater Atlantis OBS Nodes Data - Beyond Wavefield Separation	1955
<i>G. Xia</i>	
3D Multiple Attenuation and Depth Imaging of Ocean Bottom Seismic Data	1960
<i>J. Mispel</i>	
A 2.5D Method for Removal of Free-surface-related Seismic Events	1965
<i>C. Kostov</i>	
Deepwater Seismic Data Collection and Processing - A Study from the 2006 Turkish Black Sea Kozlu 3D Program	1970
<i>J.E. Palmer</i>	

Volume 4

Adaptive Subtraction Using Complex Curvelet Transforms	1975
<i>R. Neelamani</i>	
Velocity Dispersion and the Petrophysical Properties of Porous Media	1980
<i>L.F. Sun</i>	
Preconditioning for Linearised Inversion of Attenuation and Velocity Perturbations	1985
<i>B. Hak</i>	
Deriving 3D Q Models from Surface Seismic Data Using Attenuated Traveltime Tomography	1990
<i>M. Cavalca</i>	
3-D Tomographic Amplitude Inversion for Compensating Transmission Losses in the Overburden	1995
<i>B. Hung</i>	
Modelling Near-field Effects in VSP-based Q-Estimation	2000
<i>A.B. Haase</i>	
The Strategies for Attenuation Inversion with Waveform Tomography	2005
<i>Y. Rao</i>	
Frequency Attenuation Tomography - A Tool for Imaging Carbonates Reef Reservoirs	2010
<i>P.L. Carrillo</i>	
A Seismic Characterization of Antarctic Glacial Sediments in the Ross Sea	2015
<i>S. Picotti</i>	
3D Dual-sensor Data Processing with Proper Handling of Aliased Energy	2020
<i>T. Kluever</i>	

Optimal Deghosting Algorithm - A Robust Deghosting Approach for Over/Under Towed-streamer Data	2025
<i>A.K. Ozdemir</i>	
Over-under Deghosting - 1D, 2D or 3D Algorithms in the F, FK or FXY Domains	2030
<i>B. Gratacos</i>	
Target Oriented Directive Designature	2035
<i>C. Lacombe</i>	
Pre-Processing Requirements for Reverse Time Migration	2040
<i>I.F. Jones</i>	
Time-Varying Wavelet Estimation and Deconvolution for Surface Seismics	2045
<i>M.A. van der Baan</i>	
Seismic Noise Attenuation Using 2D Complex Wavelet Transform	2050
<i>Z. Yu</i>	
Curvelets - A Versatile Tool for Denoising Seismic Data	2055
<i>R. Neelamani</i>	
Lab Investigation of Oil Swelling Elastomers for Smart Well Completions	2060
<i>A. Al-Yami</i>	
Performance Enhancements of Viscoelastic Surfactant Stimulation Fluids with Nanoparticles	2076
<i>J. Crews</i>	
Next-Generation Sand Screen Enables Drill-in Sandface Completions	2087
<i>M. Coronado</i>	
Coupled Well and Reservoir Simulation Models to Optimize Completions Design and Operations for Smarter Subsurface Control	2101
<i>J. Wan</i>	
Finite Element Modelling of Casing in Gas Hydrate Bearing Sediments	2108
<i>B. Tohidi</i>	
Simulation of Transient Cuttings Transportation and ECD in Wellbore Drilling	2122
<i>S. Costa</i>	
Transverse Multi-Fracture Technique in Kitina Highly Deviated Off-Shore Wells	2132
<i>L. Tealdi</i>	
Real Time Well Placement above a Tar Mat – Leveraging Formation Pressure While Drilling and Pyrolytic Oil-Productivity Index Technologies	2160
<i>K. Al-Salem</i>	
Immiscible Gas Injection - Challenges, Example of the 16th TH Horizon, Austria	2167
<i>M. Gruenwalder</i>	
Expandable Monobore Drilling Liner Extension Technology - Development, Applications and Implementations Following the First Commercial Introduction and Deployment	2178
<i>C. Stockmeyer</i>	
The Impact of Sandstone Strength's Behaviour as a Result of Temperature Changes in Water Injectors	2192
<i>J. Tovar</i>	
Formation Mineralogy Impacts Scale Inhibitor Squeeze Designs	2204
<i>R. Gdanski</i>	
Modelling a Surfactant Preflush with Non-aqueous and Aqueous Scale Inhibitor Squeeze Treatments	2219
<i>O. Vazquez</i>	

A New Pseudo-acoustic Wave Equation for VTI Media	2232
<i>X. Du</i>	
Parsimonious Finite-volume Frequency-domain Method for 2D P-SV-Wave Modelling	2237
<i>R. Brossier</i>	
Accuracy of qP Wave Modeling in Anisotropic Acoustic Media by a Finite-Difference Frequency-Domain Method	2242
<i>A. Ribodetti</i>	
Frequency-domain Acoustic Wave Modeling Using a Hybrid Direct-Iterative Solver Based on a Domain Decomposition Method	2247
<i>F. Sourbier</i>	
Automatic 3-C 3-D VSP Wavefield Separation	2252
<i>E. Blas</i>	
Velocity Calibration and Wavefield Decomposition for Walkover VSP Data	2258
<i>J. Mann</i>	
Integrated Crosswell Seismic Inversion - Test on Belayim Land Data	2263
<i>C. D'Agosto</i>	
Imaging Beneath Igneous Sills Using Reverse Time Depth Migration	2268
<i>R. Hardy</i>	
A Generalised Derivative Operator for Potential Field Data	2273
<i>G.R.J. Cooper</i>	
Mapping the Structure and Depth of Sedimentary Basins Using the Magnetic Tilt-Depth Method	2278
<i>J.D. Fairhead</i>	
Inversion of Potential Field Data Using the Structural Index as Weighting Function Rate Decay	2283
<i>F. Cella</i>	
Target Delineation Using Full Tensor Gravity Gradiometry Data	2288
<i>C.A. Murphy</i>	
Marine Time Domain CSEM - The First Two Years of Experience	2293
<i>N.A. Allegar</i>	
On the Removal of MT Signals from SBL Data	2298
<i>S. de la Kethulle de Ryhove</i>	
Modeling Results of On- and Off-time B and dB/dt for Time-domain Airborne EM Systems	2303
<i>C. Yin</i>	
Sand Cleanout with Coiled Tubing - Choice of Process, Tools, or Fluids?	2308
<i>J. Li</i>	
LWD Acoustic Measurements Enhancements for Varying Drilling Conditions	2336
<i>J. Moore</i>	
Application of a Highly Efficient Multi-stage Stimulation Technique for Horizontal Wells	2349
<i>R. Kelkoui</i>	
Investigation of Key Controls on Estimating Fracture Orientations from AVOA Data	2358
<i>M.J. Harrison</i>	
Thin-bed Reservoir Characterization Using Relative Impedance Data, Joanne Field, U.K.	2363
<i>L.T. Brown</i>	

Detailed Geological Model of Carbonate Reservoir Based on Geostatistical AVA-Inversion - A Case Study	2368
<i>O. Rodina</i>	
Integrated Seismic Characterization and Reservoir Modelling in a Structurally Complex Carbonate Field, Libyan Offshore	2373
<i>C. Monesi</i>	
A Fracture-Only Reservoir Simulator with Physically-based Transfer Functions	2378
<i>E. Unsal</i>	
Improved Characterization of Naturally Fractured Reservoirs by Joint Inversion of Production and Seismic AVOZ Data	2383
<i>A. Shahraini</i>	
Fractured Reservoir Prediction from 3D Seismic Volumetric Curvature	2388
<i>A. Alam</i>	
An Innovative and Multi-disciplinary Methodology for Modelling Naturally Fractured Reservoirs	2393
<i>F. Daniau</i>	
Benchmarking Prestack AVO Inversion	2398
<i>J.P. Neep</i>	
AVO Is Not an Achilles Heel but a Valuable Tool for Successful Exploration West of Shetland	2403
<i>N. Loizou</i>	
High-quality AVO Products from High-Resolution Seismic	2408
<i>D. Ellis</i>	
Seismic Evaluation of Reservoir Quality and Gas Reserves of DHI Supported Deep-Water Systems, Offshore Nile Delta	2413
<i>M. Galbiati</i>	
Methods of Multicomponent Seismic Data Interpretation	2418
<i>R.R. Stewart</i>	
Stretch Compensation in Angle Domain - Implication on Wide Angle AVO/AVA Studies ...	2423
<i>D. Lecerf</i>	
Uncertainty Analysis in Prestack Stratigraphic Inversion - A First Insight	2428
<i>F. Delbos</i>	
Fast Bayesian Seismic Prestack Inversion with Consistent Coupling to Rock Physics	2433
<i>A. Buland</i>	
Monitoring of Geological Carbon Sequestration Using the Coda-Wave Interferometry Method and Time-lapse VSP Data	2438
<i>R. Zhou</i>	
Estimation of CO₂ Saturation Considering Patchy Saturation at Nagaoka	2443
<i>C. Konishi</i>	
Modelling of CO₂ Injection in Faulted Reservoirs - Importance of Multiphase Properties of Fault and Stress Path Evolution	2448
<i>S. Skachkov</i>	
Time Lapse VSP Program for Otway Basin CO₂ Sequestration Pilot Project	2453
<i>M. Urosevic</i>	
Bayesian Inversion Whispers	2458
<i>J. Gunning</i>	
Integration of Structural Uncertainties into Reservoir Grid Construction	2463
<i>P. Thore</i>	

Objective Assessment of the Reliability of 4D Seismic for Value of Information Analysis	2468
<i>P. Delfiner</i>	
Formalizing Geological Knowledge through Ontologies and Semantic Annotation	2473
<i>L. Mastella</i>	
4D Chi Significance - Enhanced AVO Imaging of 4D Fluid and Pressure Changes	2478
<i>T.A. Ricketts</i>	
Uncertainty Study of Time-lapse Seismic Data in a Carbonate Field	2483
<i>S. Vega</i>	
4-D Petrophysical Seismic Inversion on the Troll West Field	2488
<i>K.G. Gjerding</i>	
Comparison of Probabilistic and Forward Modeling Workflow Approaches for Integrating 4D Seismic into Reservoir Models (Best of AAPG)	2493
<i>S.A. Castro</i>	
R We There Yet?	2499
<i>J.V. Herwanger</i>	
On the Feasibility of Using Marine CSEM for Reservoir Monitoring	2504
<i>L.O. Loeseth</i>	
Feasibility of EM Monitoring in Land Reservoirs	2509
<i>C. Schamper</i>	
Radar Satellite Observations for Reservoir Monitoring - Case Histories	2513
<i>F. Novali</i>	
Fluid Substitution in Rocks Saturated with Heavy Oil	2518
<i>D. Makarynska</i>	
Microscale Modeling of Heavy Oil Rocks	2523
<i>K. Stuermer</i>	
Generalization of Gassmann Equations for Porous Rocks Saturated with a Solid Material - Theory and Applications	2528
<i>R. Ciz</i>	
Penetrating Neutron Radiation Enhances Physical Properties of Rock	2533
<i>F.C. De Beer</i>	
Experimental Compaction of Kaolinite Aggregates - Effects of Grain Size on Mudrock Properties	2539
<i>N. Mondol</i>	
Differential Acoustic Resonance Spectroscopy (DARS) Measurements	2544
<i>B.B.S.A. Vogelaar</i>	
Generalized Anisotropy Parameters for Attenuative Media of Arbitrary Anisotropy Type	2550
<i>P.N.J. Rasolofasaon</i>	
Modelling Effective Elastic Properties of Fractured and Partially-saturated Rocks	2555
<i>F. Wenzlau</i>	
Log Quality Assessment and Data Correction for AVO	2560
<i>E. Anderson</i>	
Test of Rock Physics Models for Prediction of Seismic Velocities in Shallow Unconsolidated Sands	2565
<i>C.F. Andersen</i>	

In Situ Estimation of Third-order Elastic Parameters - Theory and Example from the Gulf of Mexico	2570
<i>R. Bachrach</i>	
From Dynamic Moduli to Static Moduli in Arbitrary Anisotropic Rocks with Preisach Viscoelastic Models	2575
<i>P.N.J. Rasolofasaon</i>	
Application of Shear Wave Anisotropy for Natural Fracture Detection in a Cased Well (Best of AAPG)	2580
<i>S.T. Grayson</i>	
Multipole Dispersion Tracking for Accurate Slow Shear Determination in LWD Sonic Data	2581
<i>J. Market</i>	
Real-time Completion Monitoring with Acoustic Waves	2586
<i>A.V. Bakulin</i>	
Experimentally Achieving Borehole Radar Antenna Directivity in the Time Domain in the Presence of Strong Mutual Coupling (Best of SAGA)	2591
<i>D. Vogt</i>	
Comparison of Uncertainty Estimates from Deterministic and Geostatistical Inversion	2597
<i>M.S. Sams</i>	
New Data and New Tools That Can Enhance Exploration Success	2602
<i>R. Schrynemeeckers</i>	
GeoMind, a Geophysical Multilingual Internet-driven Information Service	2607
<i>J. Sedlák</i>	
Impact of the Physical-chemical Interactions on the Sealing Capability of a Cap Rock for CO₂ Containment in Aquifers	2612
<i>Y. Cinar</i>	
Possibilities of Carbon Sequestration and Storage in Depleted Gas Fields in Poland	2617
<i>J. Stopa</i>	
Carbon Dioxide Geological Storage Potential of Deep Saline Aquifers of the Central Bohemian Upper Palaeozoic Basin	2622
<i>Z. Tasáryová</i>	
Towards 3D Spatio-Temporal Pore Pressure Stress Coupling Prediction in Reservoirs	2627
<i>J.B. Altmann</i>	

Volume 5

Minimizing Risk of Gas Escape in Gas Storage and Sequestration by In-situ Measurement of GTP and Optimized Completion Solutions	2632
<i>L. Ostrowski</i>	
Alteration of Thermodynamic Equilibria and Fluids-rock Interactions During Acid Gas Injection into a Carbonate Sour Oil Reservoir	2644
<i>P. Ceragioli</i>	
Non-double-couple Mechanisms of Microearthquakes Induced by Hydraulic Fracturing	2658
<i>J. Sileny</i>	
Microseismic Signatures of Nonlinear Pore Pressure Diffusion	2663
<i>N. Hummel</i>	
How Long Should We Observe Microseismicity after Finishing a Borehole Fluid Stimulation?	2668
<i>C. Langenbruch</i>	

Microseismic Monitoring of Reservoir Stimulation - Magnitudes of Induced Seismicity	2673
<i>J. Kummerow</i>	
Earthquake Triggered Modifications of Microtremor Signals above and nearby a Hydrocarbon Reservoir in Voitsdorf, Austria	2678
<i>T.T. Nguyen</i>	
Back-azimuth Relocation of Monitoring Arrays.....	2683
<i>A. Bouskova</i>	
3D Tomography Imaging Using Micro-seismic Events.....	2688
<i>A.A. Al Ramadhan</i>	
From 3D to 4D Passive Seismic Tomography - The Sub-surface Structure Imaging of the Val d'Agri Region, Southern Italy	2693
<i>L. Valoroso</i>	
Non-double-couple Seismic Events Induced by Hydraulic Fracturing Observed from a Linear Array of Receivers	2698
<i>Z. Jechumtálová</i>	
Resolution of Non-double-couple Mechanisms in Microseismic Monitoring - Simulation of HDR Experiment at Soultz, Alsace	2703
<i>J. Sileny</i>	
Shear-wave Splitting Analysis of Microearthquake Data Observed with Downhole Seismic Network	2708
<i>V. Oye</i>	
Determination of S-wave Backazimuth from a Linear Array of Receivers.....	2713
<i>T. Fischer</i>	
Computation of Kinematic Attributes for Pre-stack Time Migration	2718
<i>G. Lambaré</i>	
3D Prestack Time Migration by Multipath Summation.....	2723
<i>T.J. Moser</i>	
Object-Oriented Procedures for Imaging of Reservoirs in Complex Environment.....	2728
<i>V. Tcheverda</i>	
Comparison of Average Methods to Build a Velocity Model from Sonic Log	2733
<i>M.B.C. Silva</i>	
Quasi-Acoustic Approximations for qSV-waves in a Transversely Isotropic Medium.....	2738
<i>Y.V. Roganov</i>	
Anisotropic 2.5D - 3C Finite-difference Modeling.....	2743
<i>A. Kostyukevych</i>	
Large-scale Massively Parallel Finite-difference Time-domain Modelling for Realistic Simulations of 3D Seismic Surveys	2748
<i>R. Streich</i>	
Parallel Seismic Modeling Using the Pseudospectral Method on Marmousi2.....	2753
<i>P.L. Stoffa</i>	
An Efficient Parallel Chebyshev Pseudo-spectral Method for Large Scale 3D Seismic Forward Modelling	2758
<i>P. Danecek</i>	
Finite-difference Simulation of Seismic Waves in Multiscale Media	2763
<i>V.A. Tcheverda</i>	
A 3D Parsimonious Finite-Volume Frequency-domain Method for Elastic Wave Modelling	2768
<i>V. Etienne</i>	

Double Porosity Biot Theory Extension	2773
<i>M.A. Barsottelli-Botelho</i>	
3D Modeling of Acoustic Green's Function in Layered Media with Diffracting Edges	2778
<i>M. Ayzenberg</i>	
Efficient Seismic Modelling Using Finite Differences and Ray Tracing	2783
<i>J. Miksat</i>	
Finite Element-finite Difference Method in 2-D Seismic Modeling	2788
<i>T. Liu</i>	
Accelerating Seismic Computations on FPGAs – From the Perspective of Number Representations	2793
<i>H. Fu</i>	
Parallel Computing Optimization for Processing the Seismic Data	2798
<i>V.G. Tulchinsky</i>	
Design Space Analysis for the Acoustic Wave Equation Implementation on FPGA Circuits	2803
<i>T. Nemeth</i>	
Elastic Wave Modeling Using the Cell-based Finite Differences in Anisotropic Media	2808
<i>S.C. Lim</i>	
Prestack Seismic Signal Enhancement by Dip Detection and Dip Selection	2813
<i>N. Gulunay</i>	
Uniform Discrete Curvelet Transform for Seismic Processing	2818
<i>H. Chauris</i>	
Spectral Decomposition of Seismic Data via Wigner-ville Distribution and Chirplet Transform	2823
<i>R. Zhang</i>	
Recognizing Apparent P-wave Azimuthal Velocity Anisotropy Caused by Isotropic Lateral Velocity Variations	2828
<i>E.L. Jenner</i>	
Time-lapse Tomographic Inversion Using a Gaussian Parameterization of the Velocity Changes	2833
<i>A.K. Evensen</i>	
Gather Flattening Based on Event Tracking for Each Time Sample	2838
<i>N. Gulunay</i>	
Robust Residual Gather Flattening	2843
<i>F. Gamar-Sadat</i>	
Improved Time Delay Estimation	2848
<i>E. Zabih Naeini</i>	
3D Mathematical Modeling of Electromagnetic Fields in the Presence of Hydrocarbon Pool	2853
<i>P.A. Dubinin</i>	
Integral Equation Modeling for 3D Seabed Logging Applications	2858
<i>A. Moradi Tehrani</i>	
An Approximate Solution to the Electromagnetic Problem for Two Half Spaces	2863
<i>D. Vázquez Anzola</i>	
Applying Essentially Non-oscillatory Interpolation to CSEM Modelling	2868
<i>M. Wirianto</i>	
Processing of Full Azimuth, High-density Land Acquisition - 3D Irharen, Algeria	2873
<i>L. Bovet</i>	

Imaging and Mapping of Hydrocarbon Traps in Areas of Complex Salt Tectonics in Ukraine - Case Studies	2878
<i>O.M. Tiapkina</i>	
Depth Imaging Sequence on the Volve Node Dataset	2883
<i>B.M. Traub</i>	
Depth Imaging of OBS Reflection Data with Wavefield Separation	2888
<i>E. Asakawa</i>	
Analysis of GPR Data for Snow Water Equivalent	2893
<i>A. Godio</i>	
Shallow Geophysical Techniques During Underwater Gas Pipeline Inspection	2898
<i>V.P. Lisin</i>	
Evaluation of the Influence of Vinasse Dipsal on Soil by DC-resistivity Data Analysis	2903
<i>J.I. Igarashi da Cruz</i>	
Influences of Moisture Content in Geoelectric Monitoring of Underground Oil Contamination	2908
<i>F. Chitea</i>	
Geoelectrical Detection of Oil-contaminated Plumes in the Vicinity of Ploiesti Refineries, Romania	2913
<i>D. Ioane</i>	
Heavy Metal Treatment Using for Agents for Acid Mine Drainage	2918
<i>J.C. Choi</i>	
Urban Geophysical Investigations in Ukraine	2923
<i>O. Menshov</i>	
Newer Results of Environmental Analysis Using TAU-trasformation of Time-Domain IP Data	2929
<i>E. Turai</i>	
A Comparison between Two GPR Data Processing Techniques for Fracture Detection and Characterization	2934
<i>M. Bavusi</i>	
Transmission and Reflection of Mixed Surface Waves on the Vertical Boundaries	2939
<i>N.Y. Kirpichnikova</i>	
Regional Mapping of the Average Shear Wave Velocity for Geotechnical Applications - An Example in North-Eastern Italy	2944
<i>R.G. Francese</i>	
Seismic Prediction Ahead of Tunnel Construction Using Rayleigh-waves	2949
<i>S.J. Jetschny</i>	
Approximate Computation of the 3D Seismic Response of Small-Size Buried Objects	2954
<i>M. Dietrich</i>	
Integrated Geophysical Approach for the Detection of Underground Voids in a Construction Site	2959
<i>C. Orfanos</i>	
Monitoring of Engineering-geological Conditions Along Area of the Surface Bedding Underground	2964
<i>V.V. Prylukov</i>	
Influence of Ensemble Geostatistics on Production History Matching and Prediction at New Wells	2970
<i>E. Peters</i>	

From Reservoir Studies Best Practices to an Advanced Web Based System to Set Up and Monitor Project Activities	2975
<i>B. Volpi</i>	
Time-lapse Seismic Reservoir Characterisation to Aid History Matching	2980
<i>L.M. Barends</i>	
Incorporating Crossing Conjugate Faults in Reservoir Models	2986
<i>K.S. Hoffman</i>	
Automatic Fracture Network Model Update Using Smart Well Data and Artificial Neural Networks	2991
<i>T. Babadagli</i>	
Using Experimental Designs, Assisted History Matching Tools and Bayesian Framework to Get Probabilistic Production Forecasts.....	3010
<i>T. Schaaf</i>	
Local Update of Object-based Geomodels.....	3026
<i>F. Georgsen</i>	
Linking Sequence Stratigraphy, Depositional Environment and Sedimentary Facies to Model the Sandstone 3D Architecture within Palaeozoic Clastic Reservoirs, Saudi Arabia	3036
<i>M. Al-Khalifa</i>	
Investigation Up-Scaled Petrophysical Measurements Using Several Micro-level FOV Petrographic Images on Burgan 3rd Sand	3047
<i>Y.W. Al-Mehanna</i>	
Seismic Measurements of Fluid Viscosity in HTI Media - A Numerical Modeling Analysis	3052
<i>Z. Qian</i>	
A Local Linear Neurofuzzy Model for the Prediction of Permeability from Well-log Data in Carbonate Reservoirs.....	3057
<i>Y. Beiraghdar</i>	
The Porosity Estimation by Using an Adaptive Neuro-fuzzy Model from Well-Log Data.....	3062
<i>Z.O.K. Khaxar</i>	
Electrokinetic Reflection and Transmission at a Fluid/Porous-medium Interface	3067
<i>M.D. Schakel</i>	
A Calculation Procedure of Shear-wave Velocity Estimation	3072
<i>L. Zhang</i>	
Seismic Attribute-based Evaluation of Anisotropic Piezosensitivity Theory.....	3078
<i>R. Ciz</i>	
Prediction of Geological Heterogeneities in Coal Seams Using Seismic Technique.....	3083
<i>M.G. Tirkel</i>	
Full Waveform Seismic Modelling for Gas Hydrate Studies.....	3088
<i>S. Rajput</i>	
Geostatistical Integration of Gravity and Magnetotelluric Data	3093
<i>J.S. Park</i>	
Integration of Seismic and Electromagnetic Methods to Define Regional Faults	3098
<i>A.V. Antsiferov</i>	
Detrital and Diagenetic Illite Identified from Crystallite Thickness Measurements - A Tool for Paleo-temperature Estimate	3103
<i>L. Aldega</i>	

Reaction Transport Modelling - Simulation of Reflux and Convection Dolomitization Models in an Isolated Carbonate Platform	3108
<i>O. Borromeo</i>	
Controls on Reservoir Stress Path	3113
<i>J.M. Segura</i>	
Exploration Potential in Area 4 - Offshore Malta	3118
<i>L. Lipparini</i>	
Structural Evolution of the Apenninic-maghrebian Orogen in Eastern Sicily - Thermal and Thermochronological Constraints.....	3123
<i>L. Di Paolo</i>	
Organic Matter Optical Analysis and Clay Mineralogy to Unravel the Tectonic/Sedimentary Burial in the Laga Basin, Italy	3128
<i>V. Cantarelli</i>	
Geological Framework of PO Plain and Adriatic Foreland System	3133
<i>R. Fantoni</i>	
Structural and Thermal Constraints to the Tectonic Evolution of Foredeep Successions in the Northern Apennines, Italy	3138
<i>F. Botti</i>	
The Constraints to the Subsidence and Exhumation of Alpine Units and the Tertiary Piedmont Basin, NW Italy	3143
<i>P. Mosca</i>	
Albanides, a Typical Part of the Alpine Mediterranean Folded Belt, in the Light of the Geophysical Studies	3147
<i>A. Frasheri</i>	
Deep Structures of South Caspian Basin from 2D Gravity Modelling.....	3152
<i>A.H. Gadirov</i>	
Advanced Detector of Ground Roll for Single-station SVD-based Polarization Filtering	3156
<i>O. Tiapkina</i>	
An Effective Algorithm for Tri-phone Reorientation	3161
<i>D. Maillot</i>	
Midget Seismic in Sandbox Models - Emission Properties of Piezo-Electric Transducers..	3166
<i>M.L. Buddensiek</i>	
Estimation of Ground Stiffness, Ground Viscosity and Captured Ground Mass Using Vibrator Field Measurements.....	3171
<i>Z. Wei</i>	
Next Generation QC Techniques Today - A Case Study.....	3177
<i>L. West</i>	
Single Sensors Versus Hard-wire Arrays in Pre-stack Stereotomography	3182
<i>C. Iacob</i>	
Reconstructing Missing Near Offset Data and Primaries from Multiples	3187
<i>G.J.A. van Groenestijn</i>	
Optimizing SRME Multiple Prediction.....	3192
<i>D. Donno</i>	
Why Should We Use Probability Models for Seismic Data Processing? A Case Study Comparing Wiener and Kriging Filters	3197
<i>L. Sandjiv</i>	
F-x Noise Attenuation by Empirical Mode Decomposition.....	3202
<i>M. Bekara</i>	

Delft - Inverse Scattering Surface-related Multiple Attenuation in Three Lines	3207
<i>S.A. Levin</i>	
A New Median Filter for Suppressing Seismic Random Noise	3212
<i>Y. Liu</i>	
Hybrid Inversion of First-arrivals Times	3217
<i>M.S. Mendes</i>	
Moveout Analysis and Velocity Determination for Angle-domain Common-Image Gathers.....	3222
<i>J.F. Schneider</i>	
3-D Refraction Traveltime Tomography Algorithm Based on Adjoint State Techniques.....	3227
<i>C. Taillandier</i>	
Tomographic Velocity Model Building Using Iterative Eigendecomposition	3232
<i>K. Osypov</i>	
Automatic Velocity Analysis with the Two-way Wave Equation.....	3237
<i>W.A. Mulder</i>	
Seismic Modeling for Interpretation Verification and PSDM Workflow Design - A Case Study.....	3242
<i>Q. Liao</i>	
Towards a Unified Imaging Procedure for 2-D Land Multichannel Seismic Data	3247
<i>P. Jaiswal</i>	
Using FD Seismic Simulation for 3D Seismic Survey Design Complicated by Salt Dome Tectonics, Case Study.....	3252
<i>P. Gofman</i>	
Inverse Q Filtering in 3D P-P and P-SV Seismic Data - A Case Study from Sichuan Basin, China	3257
<i>S.Q. Chen</i>	
Estimating Attenuation by Using Marine Seismic Reflection Data.....	3262
<i>A. Kaslilar</i>	
Microscale Yielding as Mechanism for Low-frequency Intrinsic Seismic Wave Attenuation	3267
<i>V.M. Yarushina</i>	
Seismic Signatures of Anisotropic Dispersion Anomalies	3272
<i>M. Chapman</i>	
An Extension of Linear Inverse Scattering Methods for Absorptive Media to the Case of an Absorptive Reference.....	3277
<i>K.A. Innanen</i>	
Waveform Inversion with Data Correlation	3282
<i>T. van Leeuwen</i>	
Near Surface Velocity Analysis in the Common Image Cube (CIC) Domain	3287
<i>S.M. Al-Saleh</i>	

Volume 6

Testing Gassmann Fluid Substitution Using Sonic Logs and Core Measurements in a Sandstone Reservoir	3292
<i>M. Grochau</i>	
Synthesis of Realistic Petrophysical Logs Using Truncated Fractal Levy Flights	3297
<i>A.-C. Bon</i>	

Scaling of NMR and Mercury Porosimetry Data on the Basis of Reservoir Parameters of Various Rocks	3302
<i>E. Puskarczyk</i>	
Influence of Structure and Cracks Distribution on P-wave Velocity Anisotropy in Rocks - Laboratory and Field Study	3308
<i>J. Vilhelm</i>	
Fracture Mechanics - Fracture Toughness Determination	3313
<i>T. Backers</i>	
Fracture Mechanics - Examples of Applications in Rock Engineering	3318
<i>T. Backers</i>	
Mechanically Induced Permeability Damage Due to Rock Proppant Interactions	3323
<i>A. Reinicke</i>	
Velocity to Resistivity Transform for the Norwegian Sea	3328
<i>L. Hubert</i>	
Magnetotellurics in the Rub al'Khali, Saudi Arabia	3333
<i>A. Al-Dulaijan</i>	
First Application of Marine Magnetotellurics Improves Depth Imaging in the Santos Basin, Brazil	3338
<i>P.P. de Lugao</i>	
Contrast Source Inversion of Marine Controlled Source Electromagnetic Data for Hydrocarbon Prospecting	3343
<i>T. Wiik</i>	
Gradient Calculations for 3D Inversion of CSEM Data Using a Fast Finite-Difference Time-domain Modelling Code	3348
<i>T. Støren</i>	
Scenario Planning for Electromagnetic Surveying	3354
<i>B.A. Hobbs</i>	
RTP - A New Algorithm for Generation of 2D Resistivity Sections from MTEM Data	3359
<i>J.P. Linfoot</i>	
Frequency-domain 3D Borehole-surface Electromagnetic Modeling by the Volume Integral Equation Method	3364
<i>H. Liu</i>	
Realistic 3D CSEM Modelling Based on Advanced Interpretation and Geomodelling Techniques	3369
<i>F. Pivot</i>	
Recovery Factors and Production Technology - An Overview	3374
<i>J. Roelofsen</i>	
Gel-Technologies for IOR and Water Shutoff of High-viscosity Oil Pools	3379
<i>L.K. Altunina</i>	
Thermal Recovery in Kuwait - From Potential to Characterization	3384
<i>T.E.H. Esmail</i>	
Chemical Flood IOR Potential in Kuwait - 10 Year Window	3389
<i>F.Y.A. Al-Tarkait</i>	
Integrated Field Modelling of the MISKAR Field	3394
<i>R. Madray</i>	
Geothermal Exploration Using Integrated 2-D MT and Gravity Surveys in Hungary	3403
<i>H. Tulinius</i>	

Geophysical Characterization of the Gross Schoenebeck Low Enthalpy Geothermal Reservoir	3408
<i>O. Ritter</i>	
Detection of Tectonic Faults Using In-mine Geoelectric Methods	3413
<i>M. Dobroka</i>	
Experimental Exploration of Geothermal and Ore Mineralized Zones in Sudetes Mts in Poland with the Use of AMT Method	3418
<i>M. Wojdyla</i>	
Seismic Signatures of Temperature-dependent Geothermal Rocks at In-situ Reservoir Conditions	3423
<i>M.S. Jaya</i>	
Seismic Exploration for VMS Deposits within the Paleoproterozoic Flin Flon Belt, Trans-Hudson Orogen, Canada	3428
<i>M. Malinowski</i>	
Time-lapse Shallow Seismic Reflection CDP Observations in the Area of the Water Penetration to Potash Mine	3433
<i>T.V. Baibakova</i>	
Geodetic Investigation of Torfajökull Volcano, Iceland (Best of SAGA)	3438
<i>S.E. Scheiber</i>	
Sysif, a Low Frequency Seismic Profiler for Near Bottom Marine Geophysics	3444
<i>S. Ker</i>	
S-wave Reflection Seismic Exploration of a Shallow Sediment Body - A Case Study at Alfbach Valley, Vulkaneifel, Germany	3449
<i>U. Polom</i>	
Hard Rock High Resolution 3D Seismic Investigations at Olkiluoto, Finland	3454
<i>I. Ohman</i>	
Robust Use of AVO to Geohazard Assessment - South-East Asia Gas Field Case Study	3459
<i>B. Paternoster</i>	
Water Bottom Channels' Impact on Pre-stack Depth Migration on Elgin Field, North Sea	3468
<i>J. Arnaud</i>	
Shot and Receiver Domain Iterative Direct Static Corrections and Their Application	3473
<i>M.Z. Huang</i>	
Study and Application of Tomographic Static Corrections	3478
<i>Z.Y. Feng</i>	
Integrating Frequent Time-lapse Data into the Reservoir Simulation Modeling of the Valhall Field	3483
<i>J. van Gestel</i>	
High-Frequent 4D-surveys for Identification of Subtle Reservoir Property Changes	3488
<i>L.V. Skopintseva</i>	
Tight Gas Reservoir Monitoring with 4-D 9-C Seismology	3493
<i>T.L. Davis</i>	
Survey of Heterogeneity of Oil-gas Saturation of Reservoir Using Seismic Emission Waves SLEC Technology	3498
<i>A.V. Volkov</i>	

Modelling Anisotropy for Improved Velocities, Synthetics and Well Ties	3503
<i>P.W. Wild</i>	
Finite-difference Simulation of Acoustic Log in 3D Heterogeneous VTI with Attenuation ...	3508
<i>E.V. Lys</i>	
Can Image Logs Be Interpreted Using Artificial Intelligence Techniques? A Supervised Test over Two FMI Borehole Logs	3513
<i>R. Di Cuià</i>	
Mud Volcanism in the Po, Italy and South Caspian, Azerbaijan Basins - Differences and Their Possible Origins	3518
<i>A.A. Feyzullayev</i>	
Re-exploring the Cretaceous in One Block of the Maracaibo Lake Using Volume Visualization and Geological Integration	3523
<i>C. Olivares</i>	
Oil-oil and Oil-source Rock Correlation in the Alpine Foreland Basin Austria	3528
<i>R.F. Sachsenhofer</i>	
Controls on Source and Reservoir Distribution Along the East African Margin	3533
<i>I. Gomez Perez</i>	
The Prospects of Deep Horizons Development – by Example of Timan-Pechora Basin, Russia	3538
<i>E. Mironcheva</i>	
HC Prospects of the Western Black Sea, Ukraine	3543
<i>O.I. Khriachtchevskaia</i>	
Reserves Against the Russian, New Russian, and SPE Classifications Based on BS6 Example, Radonezh Field	3548
<i>M. Grechnev</i>	
Seismotomography-based Forecasting of Carbonate Deposits Promising for Oil in the Paleozoic Complex of West Siberia	3553
<i>V.L. Kuznetsov</i>	
From the CARG Project (Geological Map of Italy - 1:50,000 Scale) to 3D Geological Modeling – Collection & Dissemination of Multi-scale Geological Data	3558
<i>C. D'Ambrogi</i>	
Digitising, Geo-Referencing and Web-loading of Public Petroleum Exploration Data in Italy	3563
<i>P. Casero</i>	
Research Projects in Seismology within the DPC-INGV 2007-2009 Agreement	3568
<i>D. Di Bucci</i>	
Environmental Risk Assessment and Management Methodologies in Oil Production Frameworks	3574
<i>R. Salvati</i>	
ANDRILL (ANtartic geological DRILLing) Drilling System – A Modified UDR1200 Drill Rig for Antarctic Use	3578
<i>F. Florindo</i>	
Early to Middle Miocene Palinspastic Reconstruction of the North-western Part of the Sava Depression	3581
<i>N. Nastasic</i>	
Spectral Decomposition of Seismic Reflection Data to Detect Gas Related Frequency Anomalies	3586
<i>A. Welsh</i>	

Tectono-stratigraphic Framework of TAL Block, Pakistan Based on Seismic Interpretation	3591
<i>L. Csontos</i>	
Analysis of Seismic Attributes for Determination of Reservoir Properties of Jurassic Sediments, Western Siberia	3596
<i>I. Nagaeva</i>	
Seismic Interpretation of Jihar Field	3601
<i>M.P. Pleic</i>	
Multi-spectral Volumetric Curvature Adding Value to 3D Seismic Data Interpretation	3606
<i>S. Chopra</i>	
Geological Evolution and Trapping Mechanism of the North-West Barents Sea Continental Margin	3611
<i>P. Golynchik</i>	
Synthesis of a Virtual Reflector by Processing Recorded Seismic Signals	3616
<i>F. Poletto</i>	
Multi-component Controlled-source Interferometry by Multi-dimensional Deconvolution Applied to a 1D Elastic Model	3621
<i>J.R. van der Neut</i>	
Duplex Wave Migration and Interferometry for Imaging Onshore Data without Angle Limitations	3626
<i>N. Marmalevskyi</i>	
Amplitude Radiation Pattern of a Virtual Source - Estimation and Correction	3631
<i>J.R. van der Neut</i>	
Drillbit Seismic Interferometry with and without Pilot Signals	3636
<i>F. Poletto</i>	
Vector Migration of Virtual Source VSP Data	3641
<i>M. Lou</i>	
Sampling and Illumination Aspects of Seismic Interferometry in Horizontally Layered Media	3646
<i>E.N. Ruigrok</i>	
Single Well Imaging in Cased Borehole by Interferometry	3651
<i>F. Poletto</i>	
Wave Equation Migration Using Isochron Rays	3656
<i>E. Filpo Ferreira da Silva</i>	
2D Specular Beam Migration - Enhancing Structural Images in Frontier Areas	3661
<i>I. Cockshott</i>	
Pre-Stack Sparse Least-squares Migration	3666
<i>S.T. Kaplan</i>	
A Full-wave Equation Based Seismic Illumination Analysis Method	3671
<i>X.-B. Xie</i>	
Fourier Finite-difference Depth Extrapolation for VTI Media	3676
<i>B.J. Nolte</i>	
PSDM Velocity Model Building and Application – Case Study in KUCHE Foreland Basin ...	3681
<i>X.K. Feng</i>	
Imaging the Slope of the Marine Camamú Basin, Brazil, Using Only Reverse Time Migration	3686
<i>M.A. Barsottelli-Botelho</i>	

Regularization in Slope Tomography	3692
<i>J. Schleicher</i>	
Traveltime Approximations in VTI Media	3697
<i>R. Aleixo</i>	
Non-linear Estimation of Thomsen's Anisotropy Parameters in Dipping TI Media	3702
<i>D. Nadri</i>	
2.5D True-amplitude Diffraction-stack Redatuming	3707
<i>A. Novais</i>	
Prestack Seismic Data Enhancement with CRS Parameters	3712
<i>M. Baykulov</i>	
Treatment of Conflicting Dips in the 3D CRS Stack	3717
<i>N.-A. Mueller</i>	
Five Dimensional Interpolation	3722
<i>D. Trad</i>	
Geo-electric Surveying, a Useful Tool for Hydrocarbon Exploration	3727
<i>S. Ivanov</i>	
Creation of Geophysical Basis in the Scale 1:1000000 in the Region of the Barents Sea	3732
<i>V. Vasilev</i>	
Gravity Potential Series Expansion for Homogeneous Polyhedra	3737
<i>H. Holstein</i>	
Geological Features of Murzuq Basin Area	3742
<i>P.B. Bernardelli</i>	
Integrated Geophysical Study of the San Andreas Plate Margin	3747
<i>N. Bundalo</i>	
2D Series Expansion Based Geoelectric Inversion Using Optimized Weights	3752
<i>A. Gyulai</i>	
Gravity Survey over Jabal Hafit - Implications for Basement Configuration of the Frontal Fold Belts of Oman Mountains	3757
<i>M.Y. Ali</i>	
Automated Data-based Relative Bearing Estimation for 3-Component Borehole Seismic Sensors	3762
<i>P.N. Armstrong</i>	
Advantages and Disadvantages of Surface and Downhole Seismic Illustrated by Processing Results of 3D VSP and 3D+VSP	3767
<i>A.A. Tabakov</i>	
Moving Source VSP for the Exploration of a Geothermal Reservoir	3772
<i>R. Thomas</i>	
Imaging of Scattering Objects with VSP Data - Cross-Correlation Stacking and NMO Enhancement	3777
<i>A. Nikitchenko</i>	
Anisotropic Reflection and Transmission Joint Tomography - Method and Interests	3782
<i>S. Le Begat</i>	
Multiple Migration for Velocity Model Building with VSP Data	3787
<i>D.A. Nasyrov</i>	
Angsi K-Sands Production Performance - A Case History of Hydraulically Fractured Retrograde Gas Condensate Reservoir	3792
<i>M. Othman</i>	

Flood Front Tracking and Pulse Test Time Lags	3802
<i>I. Ershaghi</i>	
Hydrocarbon Potential Monitoring of By-passed Pay Zones Using TDT and CHFR Logs	3817
<i>G. Hamada</i>	
Quantitative Estimation of Pressure and Saturation Changes Using 4D Seismic - A Case Study in the Marlim Field, Brazil	3827
<i>R.C. Sansonowski</i>	
Prestack Time Lapse Inversion of Seismic Data from Heidrun Field, Norway	3832
<i>P.S. Routh</i>	
Quantitative Evaluation of Reservoir Fault Communication Using 4D Seismic - An Application to the Heidrun Field	3837
<i>A. Benguigui</i>	
Seismic Facies Characterization and Distribution in Reservoir Grid - Experience Feedback	3842
<i>E. Brechet</i>	
Seismic Attributes Used for Reservoir Simulation – Application to a Heavy Oil Reservoir in Canada	3847
<i>C.C. Dumitrescu</i>	
Prediction of Properties of Gas Hydrate Bearing Sediments from the Dynamic of Reflected Waves without Borehole Data	3852
<i>R.L. Pevzner</i>	
Quantitative Structural Effects in Layered Media, an Application of Anisotropic Dynamic Ray Tracing to AVAZ Studies	3857
<i>L. Chereh</i>	
Methods for Blocky Seismic AVA Inversion	3862
<i>I. Jensås</i>	
Effective Reflection Coefficients for Curved Interfaces in TI Media	3867
<i>M. Ayzenberg</i>	
AVO Inversion of Long-offset Synthetic PP Data Based on Effective Reflection Coefficients	3872
<i>L.V. Skopintseva</i>	
PZPS Event Matching and Simultaneous Inversion - A Critical Input to 3D Mechanical Earth Modeling	3877
<i>A. Murineddu</i>	
Case Study - Arbroath - an Integrated Petrophysical and Seismic Elastic Inversion Process for De-risking Infill Drilling	3882
<i>S. Helmore</i>	
Application of Extended Elastic Impedance Attributes to the Hassi Messaoud Field, Algeria	3887
<i>G.C. Robinson</i>	
Unbiased Deterministic Seismic Inversion	3892
<i>H. Ozdemir</i>	
Fracture Characterization with Azimuthal Attribute Analysis of PS-wave Data - Modelling and Application	3897
<i>Z. Qian</i>	
Integrating Seismic Attributes for Estimation of Transport Properties of Dual Porosity Rock	3902
<i>E.A. Kozlov</i>	

New Petrophysical Workflow Helps Improving Fluid Forecasts and Production Rates in the Estancia Cholita Field, Argentina	3908
<i>F.J. Vittore</i>	
Complex Evaluation of the Mezösas-W Fractured Metamorphic HC-Reservoir Pannonian Basin, Hungary	3913
<i>T.M. Tóth</i>	
Fractured Reservoir Modeling - Jihar Field Case	3918
<i>T.B.P. Babic-Puntarec</i>	
Fracture Acidizing of a HTHP Exploratory Well in Deep Carbonate Reservoir – A Case Study.....	3923
<i>M. Siddiqui</i>	
Improved and Robust Drilling Simulators Using Past Real-time Measurements and Artificial Intelligence.....	3939
<i>R. Nybo</i>	
The Perforating, Cleanup, and Data Acquisition Program for a Deepwater Thunder Horse Well in Gulf of Mexico, US	3947
<i>L. Sabbagh</i>	

Author Index