

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS



Brazilian Geophysical Society

PROGRAMME

Second EAGE/SBGF Workshop 2014

Broadband Seismic:
From theory to real examples and the road ahead

4-5 November 2014
Copacabana
Rio de Janeiro, Brazil

www.eage.org
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Welcome

Welcome to the second EAGE/SBGf Workshop themed "Broadband Seismic: From theory to real examples and the road ahead"!

The workshop intends to show some theoretical aspects and assumptions (on wave propagation, acquisition technologies and processing algorithms), practical issues, real examples on Exploration and Development (inversion, reservoir characterization and monitoring), and future trends of this subject.

This programme includes all necessary information about the workshop. Please do not hesitate to contact the EAGE & SBGf conference staff at the registration desk if you have any questions.

Committee

The international workshop committee combines the experience and knowledge of the two societies.

Didier Lecerf	PGS
Eduardo Lopes de Faria	GX Technology
Carlos Rodriguez	Queiroz Galvão E&P
Lucas Balancin	Petrobras
Kita Brasil	CGG
Diego Garcia	Petrobras
José Tassini	CPGeo
Carlos Varela	Petrobras

Workshop overview

Tuesday 4 November

Workshop: 09:00 - 18:30 hrs
Icebreaker reception: 18:30 - 20:00 hrs

Wednesday 5 November

Workshop: 09:00 - 18:00 hrs

Opening hours registration/info desk

Monday 3 November	16:00 - 18:00 hrs
Tuesday 4 November	08:00 - 17:00 hrs
Wednesday 5 November	08:30 - 17:00 hrs

Catering

Coffee/tea breaks and lunch are included in the registration fee. The coffee/tea breaks take place in the foyer. Lunch will take place in the hotel's restaurant "Forno e Fogão".

Social programme

Icebreaker reception

Tuesday 4 November, 18:30-20:00 hrs

Venue: Golden Tulip Regente Hotel, Copacabana

The icebreaker reception is a perfect occasion to meet the other workshop participants while enjoying delicious food and drinks in an informal setting.

The Icebreaker reception is sponsored by Spectrum

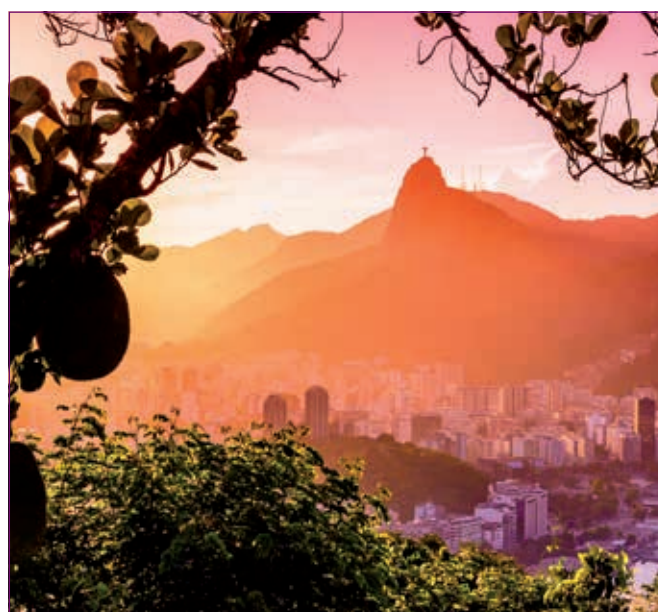


Technical Programme

The technical programme comprises keynote speeches, oral presentations, and interactive discussions.

During the opening session, Dr Carlos Cunha (Petrobras) will kick off with a short class discussing the main reasons for spectral degradation of conventional seismic data, as well as acquisition and processing techniques commonly used to reduce their impact on the quality of final seismic images. Some of the main topics to be addressed are: theoretical basics related to bandwidth limitation, data acquisition challenges, an overview of novel acquisition and processing techniques for spectral broadening, and consequences of bandwidth limitation on seismic inversion and interpretation results.

4 additional keynote speakers will reflect, in the course of the workshop, on what we have learned so far from broadband seismic, what we have gained from the new technologies, and whether our new data have lived up to our expectations. The opportunities and challenges will be discussed so as the broadband data and the integration of the knowledge. Last but not least, examples and practical experience with using broadband seismic data will be presented.



Tuesday 4 November 2014

Gávea	
OPENING SESSION	
09:00	Welcome - C. Rodriguez* (Queiroz Galvão E&P)
09:15	Short Class - Bandwidth Limitations in Seismic Acquisition, Processing and Interpretation - C.A. da Cunha Filho* (Petrobras)
10:15	Coffee break
SESSION I - ACQUISITION	
<i>D.C. Garcia (Petrobras), G. Prates (Dolphin Geophysical)</i>	
10:45	Tu A01 - Keynote Speech: Broadband Seismic: Has it Delivered on its Promise? - A.D. Pearson* (Statoil Brasil)
11:15	Tu A02 - From Variable-depth Streamer Survey Design to Real Seismic Data - Martin Linge Case Study - C. Sagary* (CGG), J. Morante-Gout (Total), G. Mikkelsen (Total) & P. Dervieux (CGG)
11:35	Tu A03 - Computation of Signal Strength at Low Frequencies and S/N Ratio Estimates for Broadband Marine Acquired Streamer Data - D.H. Carlson* (Dual Sensor Technology)
11:55	Tu A04 - Application of the Adaptive Vibroseis for Both Low and High Frequencies Enhancement - A.P. Zhukov* (GDS Ltd.) & I.P. Korotkov (GDS Ltd.)
12:15	Lunch break
SESSION II - PROCESSING I	
<i>M. Saunders (Spectrum Geo Inc), H. Prigent (CGG)</i>	
13:45	Tu B01 - Keynote Speech: Broadband Seismic - Opportunities and Challenges - M.C. Tanis* (BP America Inc.)
14:15	Tu B02 - 3D deghosting and application for full-azimuth and ultra-long offset marine data - Y.F. Li* (CGG), Q.F. Wu (CGG) & P. Wang (CGG)
14:35	Tu B03 - Evaluation of a Marine Broadband Slanted Source - R. Telling (Dolphin Geophysical), S.E. Denny* (Dolphin Geophysical), S. Grion (Dolphin Geophysical) & G. Williams (Dolphin Geophysical)
14:55	Tu B04 - Deghosting via Warping - E. Filpo Ferreira da Silva* (Petrobras), G. Lima (Petrobras)
15:15	Tu B05 - The Impact of Phase Characteristics on Seismic Data Resolution - H.B. Jedrzejowska-Tyczkowska* (Oil & Gas Institute) & K. Ziemiainin (Oil and Gas Institute)
15:35	Coffee break
SESSION III - PROCESSING II	
<i>L. Balancin (Petrobras), H. Douma (CGG)</i>	
16:05	Tu C01 - Vector-acoustic Reverse-time Migration of Volve OBC Dataset without Up/Down Decomposed Wavefields - M. Ravasi (University of Edinburgh), I. Vasconcelos* (Schlumberger Gould Research), A. Curtis (University of Edinburgh) & A. Kritski (Statoil)
16:25	Tu C02 - A Pragmatic Approach to Seismic Signature Inversion - C.A. Cunha Filho* (Petrobras)
16:45	Tu C03 - Marine Deghosting Using the Continuous Wavelet Transform - K.J. Hellman* (Geotrace Technologies, Inc.), J.A. Stein (Geotrace Technologies, Inc) & N. Shah (Geotrace Technologies, Inc)
17:05	Tu C04 - Extraction of the Normal Component of the Particle Velocity for Arbitrarily Shaped Surfaces - E.G. Asgedom* (PGS), O.C. Orji (PGS) & W. Söllner (PGS)
17:25	Tu C05 - Interactions Between Deghosting and Other Processing Steps - Searching for the Optimal Processing Order - D. Brookes* (ION Geophysical), D. McCann (Ion Geophysical) & D. Armentrout (ION Geophysical)
DISCUSSION AND WRAP UP	
17:45	Discussion and Wrap Up - D. Lecerf (Petroleum Geo-Services)

Wednesday 5 November 2014

Gávea	
SESSION IV - 4D	
<i>J. Perea (CGG), C. Rodriguez (Queiroz Galvão E&P)</i>	
09:00	We D01 - Repeatability Measure for Broadband 4D seismic - J. Burren (Petroleum geo-services) & D. Lecerf* (Petroleum Geo-Services)
09:20	We D02 - Reghosted 4D and 3D reservoir characterization using a broadband monitor on a Deep Offshore turbiditic field - C. Deplante* (Total E&P Angola), F. Jeanjean (Total E&P ANGOLA), E. Sadeghi (Total E&P Angola), V. Sebastiao (Total E&P Angola) & S. Sageder (Total SA)
09:40	We D03 - Limitations of 2D Deghosting and Redatuming in Time-lapse Processing of Towed-streamer Data - K. Eggenberger* (Schlumberger), P. Caprioli (Schlumberger) & R. Bloor (Schlumberger)
10:00	We D04 - The Impact of the Receiver-side Ghost on 4D Monitoring Using Broadband Seismic - C. Barros* (Petroleum Geo-Services), J. Burren (Petroleum Geo-Services), E. Hodges (Petroleum Geo-Services) & D. Lecerf (Petroleum Geo-Services)
10:20	Coffee break
SESSION V - INVERSION AND RESERVOIR CHARACTERISATION	
<i>P. M. De Carvalho (Petrobras), D. Lecerf (Petroleum Geo-Services)</i>	
10:50	We E05 - Keynote Speech: Broadband Data – Integration of the Knowledge - D. Sineva* (Repsol Sinopec Brasil)
11:20	We E06 - Quantitative Interpretation of Broadband Seismic Data - Challenges and Solutions - E. Zabihi Naeini* (Ikona Science)
11:40	We E07 - AVO Quality for Reservoir Properties Estimation from 2D Broadband Seismic Survey, Offshore Newfoundland and Labrador - R.J.W. Wright* (Nalcor Energy) & J.E.C. Carter (Nalcor Energy)
12:00	We E08 - Acquired Broadband Seismic and its Value for an Interpreter and a Reservoir Geophysicist - C. Reiser (Petroleum Geo-Services), Y. Balabekov* (Petroleum Geo-Services) & T. Bird (Petroleum Geo-Services)
12:20	Lunch break
SESSION VI - CASE HISTORIES	
<i>K. Brasil (CGG), E. Filpo Ferreira da Silva (Petrobras)</i>	
13:50	We F01 - Using Reflection Data to Generate a High-resolution Velocity Model with Full Waveform Inversion in the Santos Basin - R. Kumar (CGG), B. Bai* (CGG) & Y. Huang (CGG)
14:10	We F02 - Full Waveform Inversion Using Broadband Variable-depth Streamer Data in Deep Water West Africa - B. Wray* (CGG), N. Chazalnoel (CGG), W. Zhao (CGG) & H. Zhu (CGG)
14:30	We F03 - Application of Post Acquisition Receiver Deghosting Solutions on Flat and Slanted Streamers in South America - T.J. Bunting* (Schlumberger), J. Rickett (Schlumberger), P. Caprioli (Schlumberger), P. Caprioli (Schlumberger), A. Raskopin (Schlumberger), P. Munoz (Repsol), M. Polanco (Repsol) & L. Rodriguez (Repsol)
14:50	We F04 - Improving Resolution through Broadband Acquisition and Processing - A case Study in Brazil's Campos Basin - M. Tanis* (BP), S. Masclet (CGG), F. Marpeau (CGG), H. Williamson (CGG), E. Tomaz (CGG), H. Prigent (CGG), H. Douma (CGG) & M. Reinier (CGG)
15:10	We F05 - An overview of 3D Broadband Seismic Acquisition and Processing Challenges in Foz Do Amazonas Basin in Brazil - T. Cheriyan* (Total E&P USA), E. L'Arvor (Total E&P USA), F. Allache (Total E&P Do Brasil) & P. Charron (Total E&P France)
15:30	Coffee break

SESSION VII - FUTURE TRENDS

J. Tassini (Centro Potiguar de Geociencias Ltda.),
G. L. Da Silva Ritter (Petrobras)

16:00	We G01 - Keynote Speech: QGEP Experience with Broadband Seismic Data: Examples in Pre-salt Session and Eocene Oil Field - Santos Deep Water - C. Rodriguez* (Queiroz Galvão E&P)
16:30	We G02 - Spectral Patching - A. S. de Oliveira* (PETROBRAS - Petroleo Brasileiro SA)
16:50	We G03 - Recovering the Reflectivity Matrix and Angle-dependent Plane-wave Reflection Coefficients from Imaging of Multiples - A. Ordoñez* (PGS), W.F. Sollner (PGS), T. Klüver (PGS) & L.G. Gelius (UiO)
17:10	We G04 - Wave Equation Receiver Deghosting - Application to Field Data - C. Beasley* (WesternGeco) & R. Coates (WesternGeco)

CLOSING SESSION

17:30	Discussion and Wrap Up - E.L. Faria (GX Technology)
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Abstracts available on USB and EarthDoc

The workshop abstracts are available on a USB stick distributed to all full delegates during on-site registration (included in the workshop fee).

Papers are also available on EarthDoc, EAGE's online geoscience database. EarthDoc enables you to browse through thousands of event papers and journal articles online. EAGE members have free access to EarthDoc (www.earthdoc.org).



Programme changes and liability

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