

Antoine Guitton, Ph.D.

Education

- Ph.D. Stanford University** 09/1998-09/2005
- Thesis: [Multidimensional Seismic Noise Attenuation](#)
 - Advisor: Jon Claerbout, [Stanford Exploration Project](#)
- M.Sc. Stanford University** 09/1998-06/2000
- M.Sc. Physique du Globe, Strasbourg, France** 09/1993-09/1996
- Engineering diploma and D.E.A in Geophysics (M.Sc.) with honors

Experience

- DownUnder Geosolutions, Denver, Colorado** 07/2017-present
Principal Research Geophysicist
- FWI/LSRTM and machine learning.
- Colorado School of Mines, Golden, Colorado** 12/2015-present
Research Associate Professor in Geophysics
- Initiated and lead a Machine Learning effort in the Geophysics department for seismic interpretation and geophysical data integration. Raised significant CSM internal funding to start the project. This project involves the computer science and geophysics departments. The first goal is to develop a fault-identification software for 3-D seismic volumes.
 - Other research interests:
 - 3-D Seismic inversion (acoustic and elastic full waveform inversion)
 - Seismic signal processing (deconvolution, signal/noise separation, interpolation)
 - 3-D Imaging/Model building (least-squares imaging, imaging with multiples)
 - Robust optimization methods (Huber/L1/hyperbolic functionals)
 - Sparse inversion (blocky or sparse models optimization)
- Geolmaging Solutions Inc., San Mateo, California** 08/2009-02/2016
Project Manager
- Led the development of an acoustic and anisotropic elastic Full Waveform Inversion (FWI) software.
 - Led the development of a Reflection Waveform Inversion (RWI) solution to simultaneously use reflections and refractions to update the velocity model.
 - Worked on regularization schemes to impose geological constraints on velocity models obtained with FWI (blockiness, geological smoothing).
- Stanford University, Stanford, California** 09/2005-08/2014
Consulting professor in Geophysics
- Improved the Stanford Exploration Project library with the development of solvers designed to minimize the hyperbolic norm (L1/L2 norm).
 - Worked on sparse inversion techniques for deconvolution in the lag-log domain (cepstrum).
- Fusiongeo Inc., Santa Clara, California** 01/2009-07/2009
Vice President of Imaging

3DGeo Inc., Santa Clara, California

06/2007-12/2008

Vice President R&D

- Managed the R&D group in Santa Clara, CA and Houston, TX (17 people)
 - Managed salary increases, bonuses, hiring strategies
 - Enforced Software Development policies
 - Initiated the creation of a software release environment
- Technical Project Lead of the [Kaleidoscope project](#) for 3DGeo:
 - Enforcing deadlines and ensuring timely delivery of contract items
 - Acting as the technical liaison with project partners (BSC Barcelona, Repsol)
 - Leading the developments of some contracted items (Multiple attenuation)

3DGeo. Inc., Santa Clara, California

08/2005-05/2007

Senior Geophysicist

- Technical Project Lead of the [Kaleidoscope project](#) for 3DGeo:
 - Made sure deadlines were respected contract items delivered
 - Led the development of some items (Multiple attenuation)
 - Worked in collaboration with the development team of the Barcelona Supercomputing Center

CGG-Veritas, Houston, Texas

03/1997-05/1998

Research Assistant

- Worked on new techniques for surface-related multiples attenuation in the Gulf of Mexico
- Worked on the AVO of converted waves

IFP, Reuil Malmaison, France

02/1996-02/1997

Research Assistant

- Worked on elastic, true amplitude migration of well data (walkaways and VSPs)

Professional Activities

- 2017-2018: EAGE Distinguished Lecturer
- 2010-present: [Associate Editor](#) in Seismic Inversion for Geophysics (SEG publication)
- 2004-present: Technical reviewer for Geophysics (SEG publication)
- 1998-present: Member of the SEG, EAGE
- 2013: Guest Editor for The Leading Edge (SEG) special section on Full Waveform Inversion
- 2006-2011: Special Editor for Geophysics (SEG publication)

Awards

- Society of Exploration Geophysicists [Clarence Karcher Award](#), 2007
- European Association of Geoscientists and Engineers [Arie Van Weelden Award](#), 2004 (outstanding young geophysicist)
- Society of Exploration Geophysicists best student paper, 1999

Publications

Peer-reviewed publications

2017

1. Duan, Y, Guitton, A, and Sava, P, 2017, Elastic least-squares reverse time migration, **Geophysics**, 82, S315-S325, <https://doi.org/10.1190/geo2016-0564.1>
2. Guitton, A, and Alkhalifah, T, 2017, A parameterization study for elastic VTI Full Waveform Inversion of hydrophone components: synthetic and North Sea field data examples, **Geophysics**, 82, R299-R308, <https://doi.org/10.1190/geo2017-0073.1>
3. Rocha, D, Sava, P and Guitton, A, 2017, 3D acoustic least-squares reverse-time migration using the energy norm, **Geophysics**, submitted
4. Jia, X, Guitton, A and Snieder, R, 2017, Subsalt Marchenko imaging: A Gulf of Mexico example, **Geophysics**, submitted

2015

5. Guitton, A, and Claerbout, J, 2015, Nonminimum phase deconvolution in the log domain: A sparse inversion approach, **Geophysics**, 80, WD11-WD18, <http://dx.doi.org/10.1190/geo2015-0016.1>

2014

6. Claerbout, J, and Guitton, A, 2014, Ricker-compliant deconvolution, **Geophysical Prospecting**, 63, 615-625, DOI: 10.1111/1365-2478.12213

2012

7. Guitton, A, Ayeni, G. and Diaz, E, 2012, Constrained Full Waveform Inversion By Model Reparameterization, **Geophysics**, 77, R117-R127
8. Guitton, A and Diaz, E, 2012, Attenuating Crosstalk Noise With Simultaneous Source Full Waveform Inversion, **Geophysical Prospecting**, 60, 759-768.
9. Guitton, A, 2012, Blocky regularization schemes for Full-Waveform Inversion, **Geophysical Prospecting**, DOI: 10.1111/j.1365-2478.2012.01025.x

2010

10. Guitton, A and Claerbout, J, 2010, An algorithm for interpolation in the pyramid domain, **Geophysical Prospecting**, 58, 965-976.

2007

11. Guitton, A and Kaelin, B, 2007, Least-square attenuation of reverse-time migration artifacts, **Geophysics**, 72, S19-S23.
12. Guitton, A, Valenciano, A, Bevc, D and Claerbout, J, 2007, Smoothing imaging condition for shot-profile migration, **Geophysics**, 72, S149-S154.
13. Haines, S., Guitton, A. and Biondo, B, 2007, Seismoelectric data processing for surface surveys of shallow targets, **Geophysics**, 72, G1-G8.
14. Alvarez, G, Biondi, B. and Guitton, A., 2007, Attenuation of specular and diffracted 2D multiples in image space, **Geophysics**, 72, V97-V109
15. Wilson, C. K. and Guitton, A., 2007, Teleseismic Wavefield Interpolation and Signal Extraction using High Resolution Linear Radon Transforms, **Geophysical Journal International**, 168, 171-181.

2006

16. Fomel, S and Guitton, A, 2006, Model preconditioning by plane-wave construction in geophysical estimation problems, **Geophysics**, 71, A43-A47.
17. Valenciano, A, Biondi, B, and Guitton, A, 2006, Target oriented wave-equation inversion, **Geophysics**, 71, A35-A38.
18. Lomask, J., Guitton, A., Fomel, S., Claerbout, J., and Valenciano, A., 2006, Flattening without picking, **Geophysics**, 71, P13-P20.

2005

19. Guitton, A., 2005, A pattern-based approach for multiple removal applied to a 3D Gulf of Mexico dataset, **Geophysical Prospecting**, 54, 135-152.
20. Brown, M. P. and Guitton, A., 2005, Least-squares joint imaging of multiples and primaries, **Geophysics**, 70, S79-S89.
21. Guitton, A., 2005, Multiple attenuation in complex geology with a pattern-based approach, **Geophysics**, 70, V97-V107.
22. Sava, P. and Guitton, A., 2005, Multiple attenuation in the image space, **Geophysics**, 70, V10-V20.

2004

23. Guitton, A., 2004, Amplitude and kinematic corrections of migrated images for nonunitary imaging operators, **Geophysics**, 69, 1017-1024.
24. Guitton, A. and Verschuur, D.J., 2004, Adaptive subtraction of multiples with the L1 norm, **Geophysical Prospecting**, 52, 27-38.
25. Guitton, A. and Claerbout, J., 2004, Interpolation of bathymetry data from the Sea of Galilee: A noise attenuation problem, **Geophysics**, 69, 608-616.

2003

26. Guitton, A. and Symes, W., 2003, Robust inversion of seismic data using the Huber norm, **Geophysics**, 68, 1310-1319.

Conferences and other publications

2017

1. A. Guitton, 2017, Preconditioned 3D Least-squares RTM with Non-stationary Matching Filters, EAGE conference, Tu A1 06.
2. A. Guitton, 2017, Fast 3D least-squares RTM by preconditioning with non-stationary matching filters, SEG Expanded Abstracts, 4395-4399
3. D. Rocha, P. Sava, A. Guitton, 2017, Acoustic 3D least-squares reverse time migration using the energy norm, SEG Expanded Abstracts 2017, 4411-4416
4. V. Li, I. Tsvankin, T. Alkhalifah, A. Guitton, 2017, Acoustic VTI wavefield tomography of P-wave surface and VSP data, SEG Expanded Abstracts 2017, 421-425
5. X. Jia, A. Guitton, S. Singh, R. Snieder, 2017, Subsalt Marchenko imaging: A Gulf of Mexico example, SEG Expanded Abstracts 2017, 5588-5592
6. A. Guitton, H. Wang, W. Trainor-Guitton, 2017, Statistical imaging of faults in 3D seismic volumes using a machine learning approach, SEG Expanded Abstracts 2017, 2045-2049

2016

7. A. Guitton and T. Alkhalifah, Full-Waveform Inversion in an Anisotropic Elastic Earth: can we isolate the role of density and shear-wave velocity, EAGE conference, We SRS2 06.

8. T. Alkhalifah and A. Guitton, An optimal parameterization for Full-Waveform Inversion in Anisotropic media, EAGE conference, We SRS2 05.

2014

9. A. Guitton and J. Claerbout, Results of Deconvolution with Sparseness Constraints, EAGE conference, EAGE conference, Extended Abstracts, Tu E103 09.
10. A. Guitton, On the Velocity-Density Ambiguity in Acoustic Full Waveform Inversion, EAGE conference, EAGE conference, Extended Abstracts, We E106 03.
11. O. H. Kirstetter and A. Guitton, Improved Imaging in the Santos Basin with Full Waveform Inversion, EAGE conference, Extended Abstracts, Th E106 14.

2013

12. A. Guitton and T. Alkhalifah, 2013, An introduction to this special section: Full-waveform inversion and the way forward, **The Leading Edge**, 32, 1026-1028.
13. J. Claerbout, and A. Guitton, Ricker-compliant and pseudo-unitary decon, EAGE conference, extended Abstracts, Th 08 16.

2012

14. J. Claerbout, Q. Fu and A. Guitton, Decon in the log domain with variable gain, SEG expanded Abstracts, 1-5.

2011

15. A. Guitton, A blocky regularization scheme for full waveform inversion, SEG expanded abstract, 2418-2422
16. E. Diaz and A. Guitton, Fast full waveform inversion with random shot decimation, SEG expanded abstract, 2804-2808
17. A. Guitton, Building Blocky Models With Full Waveform Inversion, EAGE conference, extended abstract, F027
18. E. Diaz and A. Guitton, Reducing Artifacts in Encoded-Shots Full Waveform Inversion Using Preconditioning, EAGE conference, extended abstract, P361
19. Y Zhang, J. Claerbout, and A. Guitton, A New Bi-directional Sparse/Spike Deconvolution Method that Overcomes the Minimum Phase Assumption, EAGE conference, extended abstract, F001

2010

20. A. Guitton, G. Ayeni and G. Gonzales, A preconditioning scheme for full waveform inversion, 2010, SEG, Expanded Abstracts, 1008-1012.
21. A. Guitton, F. Ortigosa and G. Gonzales, Geologically Constrained Full Waveform Inversion– Theory, 2010, EAGE conference, extended abstract, A017.

2009

22. Antoine Guitton and Jon Claerbout, 2009, An algorithm for interpolation in the pyramid domain, EAGE conference, extended abstract, V044.

2008

23. A. Guitton, M. Fliedner, B. Biondi and F. Ortigosa, 2008, Fast velocity model building by plane-wave migration in tilted coordinates, automated volume-based picking, and tomography, SEG, Expanded Abstracts, 27, 3270-3274.
24. F. Ortigosa, Q. Liao, A. Guitton and W. Cai, 2008, Speeding up RTM velocity model building beyond

algorithmics, SEG, Expanded Abstracts, 27, 3219-3223.

2007

25. A. Guitton, B. Kaelin, F. Ortigosa, D. Bevc, C. A. Fernandez, J. Higginbotham, B. Fontecha and J. M. Cela, 2007, 3D Modeling and Migration of a Wide-Azimuth Towed Streamer Survey, SBGF conference, extended abstract.
26. Jesse Lomask and Antoine Guitton, 2007, Volumetric Flattening: an interpretation tool, **The Leading Edge**, 26, 888.
27. Antoine Guitton, Francisco Ortigosa and Bruno Kaelin, 2007, 3D Migration of a Simulated Wide-Azimuth Towed Streamer Survey, SEG, Expanded Abstracts, 26, 2310-2313.
28. Antoine Guitton, Francisco Ortigosa and Bruno Kaelin, 2007, Imaging methods in complex overburden, EAGE conference, extended abstract, C023.
29. Bruno Kaelin, Antoine Guitton and Francisco Ortigosa, 2007, Illumination Effects in Reverse Time Migration, EAGE conference, extended abstract, P285.
30. Dimitri Bevc, Francisco Ortigosa, Antoine Guitton and Bruno Kaelin, 2007, Next Generation Seismic Imaging: High Fidelity Algorithms and High-End Computing, AGU General Assembly, Acapulco.

2006

31. Antoine Guitton and Bruno Kaelin, 2006, Least-square attenuation of reverse-time migration artifacts, SEG, Expanded Abstracts, 2348-2351
32. Antoine Guitton, Alejandro Valenciano, Dimitri Bevc and Jon Claerbout, 2006, Robust imaging condition for shot-profile migration, SEG, Expanded Abstracts, 2594-2597.
33. Jesse Lomask and Antoine Guitton, 2006, Flattening with geological constraints, SEG, Expanded Abstracts, 1053-1056.
34. Antoine Guitton, Alejandro Valenciano, Dimitri Bevc and Jon Claerbout, 2006, Robust Illumination Compensation for Shot-Profile Migration, EAGE conference, extended abstract, P265.

2005

35. Sergey Fomel and Antoine Guitton, 2005, Model preconditioning by plane-wave construction in geophysical estimation problems, SEG Expanded Abstracts, 2601-2604.
36. Antoine Guitton, Jesse Lomask and Sergey Fomel, 2005, Non-linear estimation of vertical delays, SEG Expanded Abstracts, 841-844.
37. Alejandro Valenciano, B. Biondi, and A. Guitton, 2005, Target-oriented wave-equation inversion: 75th Annual International Meeting, SEG, Expanded Abstracts, 1662-1665.
38. Antoine Guitton, 2005, Sparse Radon Transforms with Bound-Constrained Optimization, EAGE Meeting.

2004

39. Alejandro A. Valenciano, Morgan Brown, Antoine Guitton, and Mauricio D. Sacchi, 2004, Interval velocity estimation using edge-preserving regularization SEG Expanded Abstracts 23, 2431.
40. Kevin Wolf, Daniel Rosales, Antoine Guitton, and Jon Claerbout, 2004, Robust moveout without velocity picking, SEG Expanded Abstracts 23, 2423.
41. Antoine Guitton, Jon Claerbout, and Jesse Lomask, 2004, First order lateral interval velocity estimates without picking, SEG Expanded Abstracts 23, 2339.
42. Morgan Brown and Antoine Guitton, 2004, Efficient prestack modeling and imaging of pegleg multiples, SEG Expanded Abstracts 23, 2148.
43. Gabriel Alvarez, Biondo Biondi, and Antoine Guitton, 2004, Attenuation of diffracted multiples in angle domain common image gathers, SEG Expanded Abstracts 23, 1301.
44. Guojian Shan and Antoine Guitton, 2004, Migration of surface-related multiples: tests on the Sigsbee2B dataset, SEG Expanded Abstracts 23, 1285.

2003

45. Antoine Guitton,, 2003, Multiple attenuation with multidimensional prediction-error filters, 73nd Ann. Internat. Mtg: Soc. of Expl. Geophys. , 1945.
46. Antoine Guitton, 2003, Amplitude and kinematic corrections of migrated images for non-unitary imaging operators, 73nd Ann. Internat. Mtg: Soc. of Expl. Geophys. , 933.
47. Paul Sava and Antoine Guitton, 2003, Multiple attenuation in the image space, 73nd Ann. Internat. Mtg: Soc. of Expl. Geophys. , 1933.
48. Seth Haines, Antoine Guitton, Biondo Biondi and Steve Pride, 2003, Development of experimental methods in electroseismics, 73nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 560.
49. Antoine Guitton, 2003, What can we do with a model of the multiples ? Presented in Workshop: Strategies towards Multi-dimensional Multiple Attenuation, 65rd Mtg.: Eur. Assn. of Expl. Geophys.

2002

50. Antoine Guitton, 2002, Shot-profile migration of multiple reflections, 72nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 1296-1299.
51. Antoine Guitton, 2002, Coherent noise attenuation using inverse problems and prediction-error filters: **First Break**, 20, no. 03, 161-167.

2001

52. Antoine Guitton, Morgan Brown, James Rickett, and Robert Clapp, 2001, Multiple attenuation using a t-x pattern-based subtraction method, 71st Ann. Internat. Mtg: Soc. of Expl. Geophys., 1305-1308.
53. Antoine Guitton, 2001, Coherent Noise Attenuation Using Inverse Theory and Prediction Error Filters, 63rd Mtg.: Eur. Assn. of Expl. Geophys., Session: P159.
54. James Rickett, Antoine Guitton, and Doug Gratwick, 2001, Adaptive Multiple Subtraction with Non-Stationary Helical Shaping Filters, 63rd Mtg.: Eur. Assn. of Expl. Geophys., Session: P167.

1999

55. Antoine Guitton and Guillaume Cambois, 1999, Multiple elimination using a pattern-recognition technique: **The Leading Edge**, 18, no. 1, 92-98.
56. Antoine Guitton and William Symes, 1999, Robust and stable velocity analysis using the Huber function, 69th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1166-1169.

1998

57. Antoine Guitton and Guillaume Cambois, 1998, Prestack elimination of complex multiples: A Gulf of Mexico subsalt example, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1329-1332.
58. Guillaume Cambois and Antoine Guitton, 1998, Prestack Elimination of Complex Multiples - a Gulf of Mexico Example , 60th Mtg.: Eur. Assn. Geosci. Eng., Session:01-25.

Contribution to SEP and CWP annual reports

Center for Wave Phenomena (CWP) annual reports

2017

1. A. Guitton, H. Wang and W. Trainor-Guitton, Statistical identification of faults in 3D seismic volumes using a machine learning approach, CWP-884
2. A. Guitton, Preconditioned 3D Least-Squares RTM with Non-Stationary Matching Filters, CWP-885
3. A. Guitton and J. Claerbout, Sparse Q-compensation in the time domain with the hyperbolic penalty function, CWP-886
4. X. Jia, A. Guitton, R. Singh, R. Snieder, Subsalt Marchenko imaging: A Gulf of Mexico example, CWP-888
5. D. Rocha, P. Sava, A. Guitton, 3D acoustic least-squares reverse-time migration using the energy norm, CWP-894

2016

6. A. Guitton and T. Alkhalifah, Full-waveform inversion in a VTI elastic earth: a parameterization and crosstalk study, CWP-857.
7. Y. Duan, A. Guitton and P. Sava, Elastic Least-squares reverse-time migration, CWP-865.
8. A. Guitton, Sparse log-domain deconvolution with offset: a Gulf of Mexico example, CWP-873.

Stanford Exploration Project (SEP) annual reports

SEP 152

1. M. Wong and A. Guitton, Preliminary results of iterative 1D imaging with the hybrid penalty function: **SEP-152**, 151-158.

SEP 150

2. J. Claerbout and A. Guitton, Ricker compliant deconvolution: **SEP-150**, 1-12.

SEP 148

3. A. Guitton, Fast log-decon with a quasi-Newton solver: **SEP-148**, 1-8.
4. J. Claerbout and A. Guitton, Modeling data error during deconvolution: **SEP-148**, 9-12.
5. A. Guitton and J. Claerbout, Decon comparisons between Burg and conjugate-gradient methods: **SEP-148**: 13-18
6. O. Barak, A. Guitton and S. Ronen, Decon in the log-domain – practical considerations: **SEP-148**: 19-28
7. A. Guitton and J. Claerbout: Six tests of sparse log-decon: **SEP-148**, 29-41

SEP 147

8. J. Claerbout, A. Guitton, Q. Fu, Decon in log domain with variable gain: **SEP-147**, 313-322.

SEP 142

9. A. Guitton and B. Ayeni, A preconditioning scheme for full waveform inversion: **SEP-142**, 75-83.

SEP 139

10. A. Guitton and J. Claerbout, Theory and practice of interpolation in the pyramid domain: **SEP-139**, 119-136.

SEP 134

11. J. Claerbout and A. Guitton, An algorithm for interpolation using Ronen's pyramid: **SEP-134**, 221-224.

SEP 125

12. G. Alvarez and A. Guitton, Simultaneous adaptive matching of primaries and multiples with non-stationary filters: **SEP-125**, 61-76.

SEP 124

13. J. Lomask and A. Guitton, Flattening with geological constraints: **SEP-124**, 105-114.

SEP 123

14. A. Valenciano, B. Biondi, and A. Guitton, Target-oriented wave-equation inversion: Sigsbee model: **SEP-123**, 83-90.

SEP 120

15. A. Valenciano, B. Biondi, and A. Guitton, Target-oriented wave-equation inversion: **SEP-120**, 23-40.
16. A. Guitton, Sparse radon transforms with a bound-constrained approach: **SEP-120**, 387-394.
17. A. Guitton, J. Lomask, and S. Fomel, Non-linear estimation of vertical delays with a quasi-Newton method: **SEP-120**, 167-178.
18. C.K. Wilson and A. Guitton, Interpolation and signal extraction of teleseismic wavefields with the linear radon transform: **SEP-120**, 197-216.
19. J. Lomask, A. Guitton, and A. Valenciano, Flattening without picking faults: **SEP-120**, 159-166.
20. J. Lomask, A. Guitton, S. Fomel, and J. Claerbout, Update on flattening without picking: **SEP-120**, 137-158.
21. B. Artman and A. Guitton, Removal of linear events with combined radon transforms: **SEP-120**, 395-406.
22. D. A. Rosales and A. Guitton, Multiple attenuation: Data space vs. image space--A real data example: **SEP-120**, 375-386.

SEP 117

23. A. Guitton, Bound constrained optimization: application to the dip estimation problem: **SEP-117**, 51-62.

SEP 115

24. D. A. Rosales and A. Guitton, Ocean-bottom hydrophone and geophone coupling: **SEP-115**, 57-70.
25. A. Guitton, Multidimensional multiple attenuation in complex geology: illustration on the Sigsbee2B dataset: **SEP-115**, 109-126.
26. A. Guitton, Subtraction of surface-related multiples: adaptive subtraction vs. pattern recognition: **SEP-115**, 127-138.
27. G. Alvarez, B. Biondi, and A. Guitton, Attenuation of diffracted multiples with an apex-shifted tangent-squared radon transform in image space: **SEP-115**, 139-152.
28. G. Shan and A. Guitton, Migration of surface-related multiples: tests on the Sigsbee2B dataset: **SEP-115**, 153-162.
29. A. Guitton, J. Claerbout, and J. Lomask, First-order lateral interval velocity estimates without picking:

SEP-115, 249-264.

30. K. Wolf, D. Rosales, A. Guitton, and J. Claerbout, Robust moveout without velocity picking: **SEP-115**, 273-282.
31. J. Lomask and A. Guitton, Analytical flattening with adjustable regularization: **SEP-115**, 367-382.
32. A. Guitton and I. Vlad, Imaging oceanic thermohaline structure with reflection seismology: **SEP-115**, 410-416.

SEP 114

33. A. Valenciano, M. Brown, M. D. Sacchi, and A. Guitton, Interval velocity estimation using edge-preserving regularization: **SEP-114**, 136-150.

SEP 113

34. A. Guitton, A comparison of three multiple-attenuation methods for a Gulf of Mexico dataset: **SEP-113**, 1-16.
35. P. Sava and A. Guitton, Multiple attenuation in the image space: **SEP-113**, 31-44.
36. S. Haines, A. Guitton, and P. Sava, Multiple suppression in the angle domain with non-stationary prediction-error filters: **SEP-113**, 45-56.
37. A. Guitton, Multiple attenuation with multidimensional prediction-error filters: **SEP-113**, 57-74.
38. A. Guitton, Amplitude balanced PEF estimation: **SEP-113**, 261-276.
39. S. Haines and A. Guitton, Coherent noise suppression in electroseismic data with non-stationary prediction-error filters: **SEP-113**, 277-284.
40. A. Guitton, Subtraction versus filtering for signal/noise separation: **SEP-113**, 285-290.
41. A. Guitton, Amplitude and kinematic corrections of migrated images for non-unitary imaging operators: **SEP-113**, 349-362.
42. A. Guitton and J. Claerbout, Interpolation of bathymetry data from the Sea of Galilee: A noise attenuation problem: **SEP-113**, 399-416.

SEP 111

43. A. Guitton, Shot-profile migration of multiple reflections: **SEP-111**, 17-33.
44. A. Valenciano, B. Biondi, and A. Guitton, Multidimensional imaging condition for shot profile migration: **SEP-111**, 71-81.
45. A. Guitton and E. Verschuur, Adaptive subtraction of multiples with the l1-norm: **SEP-111**, 157-171.
46. A. Guitton, A hybrid adaptive subtraction method: **SEP-111**, 171-183.
47. S. Haines and A. Guitton, Removal of coherent noise from electroseismic data: **SEP-111**, 183-201.
48. A. Guitton, Theoretical aspects of noise attenuation: **SEP-111**, 201-207.

SEP 108

49. A. Guitton, Coherent noise attenuation: A synthetic and field example: **SEP-108**, 225-248.
50. A. Guitton, M. Brown, J. Rickett, and R. Clapp, A pattern-based technique for ground-roll and multiple attenuation: **SEP-108**, 249-274.
51. A. Guitton, Solutions to data and operator aliasing with the parabolic radon transform: **SEP-108**, 283-296.
52. J. Rickett, A. Guitton, and D. Gratwick, Adaptive multiple subtraction with non-stationary helical shaping filters: **SEP-108**, 275-282.

SEP 105

53. A. Guitton, Coherent noise attenuation using Inverse Problems and Prediction Error Filters: **SEP-105**, 27-48.
54. J. Rickett and A. Guitton, Multi-dimensional Fourier transforms in the helical coordinate system: **SEP-105**, 167-176.

SEP 103

- 55. A. Guitton, Prestack multiple attenuation using the hyperbolic Radon transform: **SEP-103**, 181-201.
- 56. A. Guitton, Huber solver versus IRLS algorithm for quasi L1 inversion: **SEP-103**, 255-271.
- 57. A. Guitton, Implementation of a nonlinear solver for minimizing the Huber norm: **SEP-103**, 281-289.

SEP 100

- 58. A. Guitton and W. W. Symes, Robust and stable velocity analysis using the Huber function: **SEP-100**, 293-314.