Paul C. Sava

Center for Wave Phenomena, Department of Geophysics, Colorado School of Mines, Golden, CO 80401
psava@mines.edu , `http://www.mines.edu/~psava` , LinkedIn

SCIENTIFIC INTERESTS

Seismic and radar wavefield imaging & tomography
space science & planetary resource exploration
fiber-optic seismic acquisition, infrastructure monitoring

PROFESSIONAL EXPERIENCE

- **Professor** — *from 4/2018*
  Colorado School of Mines, Department of Geophysics
- **Green Chair of Exploration Geophysics** — *from 6/2015*
  Colorado School of Mines
- **Department Head** — *4/2021–7/2026*
  Colorado School of Mines, Department of Geophysics
- **Interim Department Head** — *7/2019–3/2021*
  Colorado School of Mines, Department of Geophysics
- **Director** — *8/2014–8/2018*
  Center for Wave Phenomena
- **Associate Professor** — *4/2011–4/2018*
  Colorado School of Mines, Department of Geophysics
- **Visiting Professor** — *8/2013–8/2014*
  Stanford University
- **Assistant Professor** — *1/2006–3/2011*
  Colorado School of Mines, Department of Geophysics
- **Research Associate** — *11/2004–1/2006*
  University of Texas (Austin)
- **Geophysicist** — *4/2002–6/2002*
  BP Upstream Technology
- **Software Support Geoscientist** — *3/1995–6/1997*
  Schlumberger GeoQuest

RESEARCH CENTER

- **co-Principal Investigator** — *from 1/2006*
  Center for Wave Phenomena
  Colorado School of Mines

EDUCATION

- **Ph.D. (Geophysics)**, Stanford University — *1/2005*
- **M.Sc. (Geophysics)**, Stanford University — *10/1998*
- **B.Sc. (Geophysics)**, University of Bucharest — *6/1995*

HONORS & AWARDS

- **Reginald Fessenden Award** *2007*
  for the development of angle-domain wave-equation common-image gathers
  Society of Exploration Geophysicists
- **Honorable Mention for best paper** in *Geophysics* *2004*
  for *Angle-domain common-image gathers by wavefield continuation methods*
  (co-authored with Sergey Fomel)
  Society of Exploration Geophysicists
- **Top** 25 **(**$\sim 2\%$**) presentation**
  at the Annual Convention of the Society of Exploration Geophysicists
  9. ★ *Elastic FWI with probabilistic petrophysical model constraints* *2019*
     (Aragao, Sava)
  8. ★ *Multicomponent distributed acoustic sensing* *2016*
     (Lim, Sava)
  7. ★ *Converted-waves imaging condition for elastic reverse-time migration* *2014*
     (Duan, Sava)
  6. *Uncertainty maps for seismic images through geostatistical model randomization* *2014*
     (Li, Caers, Sava)
  5. *Efficient computation of extended images by wavefield-based migration* *2009*
     (Sava, Vasconcelos)
  4. *Stereographic imaging condition for wave-equation migration* *2007*
     (Sava)
  3. *Adjoint wave-equation velocity analysis* *2006*
     (Albertin, Sava, Etgen, Maharramov)
  2. *Wavefield extrapolation in Riemannian coordinates* *2004*
     (Sava, Fomel)
  1. *Wave-equation migration velocity analysis* *1999*
     (Biondi, Sava)
- **Award of merit for best student paper**
  at the Annual Convention of the Society of Exploration Geophysicists
  3. *Wavefield extrapolation in Riemannian coordinates* *2004*
     (Sava, Fomel)
  2. *Amplitude-preserved common-image gathers by wave-equation migration* *2001*
     (Sava, Biondi, Fomel)
  1. *Wave-equation migration velocity analysis* *1999*
     (Biondi, Sava)
- **Outstanding Geophysics Faculty** *2012, 2023, 2024*
  Colorado School of Mines
- **TK Young Leadership Award** *2020*
  Colorado School of Mines
- **Jackson young scientist fellowship** *2005–2006*
  University of Texas (Austin)
- **Stanford graduate fellowship** *1997–2000*
  Stanford University
- **Green fellowship** *1998–1999*
  Stanford University

- **Chevron fellowship** *1997–1998*
  Stanford University
- **Commencement Valedictorian** *1995*
  University of Bucharest, Faculty of Geology and Geophysics
- **Romanian Government fellowship** *1991–1995*
  University of Bucharest, Faculty of Geology and Geophysics

ADVISEE AWARDS

- **Ivan Lim, Best Student Poster Paper** *2016*
  for *Multicomponent distributed acoustic sensing*
  Society of Exploration Geophysicists

TEACHING EXPERIENCE

- **Physics I** *from 2026*
  PH undergraduate (required)
- **Applied Geophysics II** *2025*
  GP undergraduate (required)
- **Python computing: Building a sensor system (CSM)** *2018–2024*
  CS/GP undergraduate (required)
- **Inversion (CSM)** *from 2010*
  GP undergraduate (required), graduate (elective)
- **Seismic wavefield imaging (CSM)** *from 2006*
  GP graduate (elective)
- **Introduction to seismic exploration (CSM)** *2006–2018*
  GP undergraduate (required)
- **Wavefield seismic imaging (UT Austin)** *2005*
  GP graduate (elective)

SHORT COURSES

- **Instructor**
  Wavefield Seismic Imaging
  newton.mines.edu/paul/wsi.php

40. CGG, Houston *5/2023*
39. JXNippon, Tokyo *6/2021*
38. JXNippon, Tokyo *7/2019*
37. CGG, Houston *8/2018*
36. JOGMEC, Tokyo *8/2018*
35. CGG, Houston *8/2017*
34. CGG, Calgary *6/2016*
33. CGG, Houston *6/2016*
32. CGG, Houston *5/2015*
31. CGG, Houston *12/2014*
30. YPF, Buenos Aires *7/2013*
29. CGG, Houston *7/2013*
28. WesternGeco, Houston *2/2013*
27. MIT, Boston *1/2013*
26. Petrobras, Rio de Janeiro *11/2012*
25. CGGVeritas, Houston *7/2012*
24. MIT, Boston *1/2012*
23. Petrobras, Rio de Janeiro *11/2011*
22. CGGVeritas, Houston *6/2011*
21. NTNU, Trondheim *5/2011*
20. CGGVeritas, Houston *2/2011*
19. WesternGeco, Houston *2/2011*
18. ExxonMobil, Houston *11/2010*
17. JAPT, Tokyo *7/2010*
16. Total, Pau *6/2010*
15. Prospectiuni, Bucharest *6/2010*
14. ExxonMobil, Houston *8/2009*
13. WesternGeco, Houston *7/2009*
12. ENI, Milan *6/2009*
11. Statoil, Trondheim *6/2009*
10. ExxonMobil, Houston *5/2009*
9. Woodside, Perth *12/2008*
8. CGGVeritas, Calgary *10/2008*

7. CGGVeritas, Perth *7/2008*
6. CGGVeritas, Kuala Lumpur *7/2008*
5. CGGVeritas, Singapore *7/2008*
4. CGGVeritas, London *7/2008*
3. CGGVeritas, Paris *7/2008*
2. CGGVeritas, Houston *6/2008*
1. CGGVeritas, Houston *12/2007*

COMPUTING WORKSHOPS

- **Co-Convener** & **Instructor**
  Madagascar School on Reproducible Computational Geophysics
  www.ahay.org/wiki/Conferences

9. Saint Petersburg, Russia *4/2014*
8. Austin, TX *7/2012*
7. Beijing, China *7/2011*
6. Houston, TX *7/2010*
5. Salvador, Brazil *8/2009*
4. Delft, the Netherlands *6/2009*
3. Golden, CO *5/2008*
2. Austin, TX *4/2007*
1. Vancouver, Canada *8/2006*

RESEARCH FUNDING

- **Radiostratigraphic Investigation of Jezero Crater's Western Fan Deposit** *8/2026–7/2029*
  PI Ganesh (GT)
  co-I Christoffersen (GT), Sava (CSM)
  $195k, NASA
- **Seismic inverse methods for complex structures** *2025–present*
  co-PI Martin (CSM), Sava (CSM), Shragge (CSM), Tsvankin (CSM)
  ∼**$1,000k/year**, industrial consortium
- **Seismic inverse methods for complex structures** *2022–2025*
  co-PI Martin (CSM), Sava (CSM), Shragge (CSM), Snieder (CSM), Tsvankin (CSM)
  ∼**$1,200k/year**, industrial consortium
- **Planetary Orbital Radar Processing and Simulation System** *7/2020–6/2023*
  PI Putzig (PSI)
  co-I Perry (PSI), Morgan (PSI), Foss (Freaqs), Sava (CSM)
  $591k, NASA
- **Lifting the veil: fusing RADAR and sound to provide enhanced perception in obscured environments** *9/2019–8/2022*
  PI Petruska (CSM)
  co-PI Duzgun (CSM), Sava (CSM), Zhang (CSM)
  $619k, Alpha Foundation
- **3D subsurface imaging and analysis of the Martian polar regions with MARSIS data** *7/2019–6/2022*
  PI Foss (Freaqs)
  co-I Sava (CSM), Gim (JPL), Plaut (JPL), Putzig (PSI), Perry (PSI), Orosei (INAF)
  $460k, NASA
- **High resolution 3D imaging of SHARAD data** *7/2019–6/2022*
  PI Sava (CSM)
  co-I Putzig (PSI), Foss (Freaqs), Perry (PSI)
  $522k, NASA
- **Investigation of Mars interior based on 3D simulations of seismic wave propagation** *8/2018–8/2022*
  PI Bozdag (CSM)
  co-I Sava (CSM)
  $203k, NASA

- **Exploring submarine slope failures with seismic data and physical laboratory experiments** *5/2018–5/2021*
  PI Dugan (CSM)
  co-PI Sava (CSM)
  $291k, NSF
- **Seismic Orbital Laser Vibrometer (SOLVE)** *1/2018–8/2020*
  PI Sava (CSM)
  co-I Asphaug (UoA)
  $244k, NASA
- **Seismic inverse methods for complex structures** *2017–2022*
  co-PI Sava (CSM), Shragge (CSM), Snieder (CSM), Tsvankin (CSM)
  ∼**$1,200k/year**, industrial consortium
- **Seismic inverse methods for complex structures** *2015–2017*
  co-PI Sava (CSM), Snieder (CSM), Tsvankin (CSM)
  ∼**$1,200k/year**, industrial consortium
- **Anisotropic velocity analysis by wave-equation migration** *7/2012–6/2014*
  PI Sava (CSM)
  $200k, KACST
- **Radar Imaging of Asteroid and Comet Interiors** *9/2011–9/2014*
  PI Grimm (SwRI)
  co-I Sava (CSM), Stillman (SwRI)
  $300k, NASA
- **Wavefield tomography model building** *9/2011–9/2012*
  PI Sava (CSM)
  $63k, BP
- **Micro-seismic imaging in noisy environments** *6/2009–6/2010*
  co-PI Nummedal et al. (CSM)
  $120k, RPSEA
- **Migration and velocity analysis with reverse-time imaging** *7/2008–6/2012*
  PI Sava (CSM)
  $420k, Eni
- **Locating micro-seismicity using interferometric imaging** *1/2008–1/2010*
  PI Sava (CSM)
  co-PI Snieder (CSM)
  $120k, ExxonMobil
- **Wave-equation migration velocity analysis** *10/2007–9/2010*
  PI Sava (CSM)
  $152k, Statoil
- **Seismic inverse methods for complex structures** *2006–2015*
  co-PI Hale (CSM), Sava (CSM), Snieder (CSM), Tsvankin (CSM)
  ∼**$1,200k/year**, industrial consortium
- **Wave-equation migration velocity analysis** *6/2005–6/2006*
  PI Sava (CSM)
  $75k, BP

POSTDOCTORAL SCHOLARS

- Dylan Hickson *2021–2022*
  Mars 3D icecap radar imaging

STUDENTS ADVISED

PhD

16. Reinaldo Sabbagh — *from 2026*
    TBD
15. Mario Gourgel — *from 2026*
    TBD
14. Levi Cass — *from 2024*
    TBD
13. Mufan Zha — *from 2024*
    TBD
12. Nicholas Dorogy — *from 2022*
    Small body interferometric seismic imaging with laser Doppler vibrometry
11. Khalid Almuteri — *2019–2023*
    Modeling and imaging marine vibrator data
10. Iga Pawelec — *2018–2023*
    Enhancing land seismic data with compressive sensing and processing
9. Odette Aragao — *2018–2021*
    Probabilistic model constraints for full-waveform inversion
8. Thomas Rapstine — *2015–2020*
    Towards airborne measurement of ground displacement
7. Ivan Lim Chen Ning — *2015–2019*
    Multicomponent DAS: concept, theory and applications
6. Daniel Rocha — *2014–2018*
    Wavefield imaging in the energy norm
5. Esteban Diaz — *2013–2016*
    Extended imaging and tomography under two-way operators
4. Yuting Duan — *2012–2016*
    Elastic wavefield migration and tomography
3. Francesco Perrone — *2008–2013*
    Velocity analysis by image warping
2. Tongning Yang — *2008–2013*
    Image-domain wavefield tomography
1. Jia Yan — *2007–2010*
    Wave-mode separation in anisotropic elastic media

MSc

12. Tiago Cabral — *2023–2025*
    Time-dependent water velocity inversion from OBN seismic data
11. Werter Silva — *2022–2023*
    Seismic imaging by nonlinear inversion
10. Samuel Courville — *2017–2019*
    Towards orbital seismology: theory for speckle noise reduction
9. Iga Pawelec — *2016–2018*
    Uncertainty quantification in seismic imaging
8. Lucas Almeida — *2015–2017*
    Data interpolation using sparsity constraints
7. Detchai Ittharat — *2013–2014*
    Radar imaging inside asteroids and comets

6. Esteban Diaz *2011–2013*
   Wavefield imaging with backscattered energy
5. Ashley Fish *2011–2012*
   Velocity analysis for microseismic imaging
4. Jeff Godwin *2009–2011*
   Seismic imaging with blended sources
3. Thomas Cullison *2009–2011*
   An image-guided method for picking CIP gathers
2. Ran Xuan *2007–2009*
   Bayesian micro-earthquake location
1. Gabriela Melo *2006–2008*
   Wide-azimuth angle decomposition

BSc

7. Duncan Byrne *from 2023*
   Radar wavefield modeling and imaging
6. Andryw Wade *2019–2021*
   Long-range laser Doppler vibrometry
5. Samuel Courville *2016–2017*
   Mars subsurface imaging/acquisition concept
4. Dana Sirota *2015–2017*
   Drone-based geophysical data acquisition
3. Alicia Johnson *2015–2016*
   Autonomous GPR acquisition
2. Detchai Ittharat *2011–2012*
   Radar imaging inside asteroids and comets
1. Trevor Irons *2006–2007*
   Stream computing for seismic data processing

GRADUATE COMMITTEES

- **PhD committees**

42. Leonid Stolov *2024–2026*
41. Anna Titova *2019–2025*
40. Christopher Amos *2022–2024*
39. Hani Alzahrani *2020–2023*
38. Jihyun Yang *2020–2023*
37. Taqi Alyousuf *2020–2022*
36. Can Oren *2019–2021*
35. Tugrul Konuk *2018–2021*
34. Ahmad Askar *2019–2021*
33. Todd Yoder *2019–2021*
32. Elizabeth Maag *2017–2020*
31. Alex Jia *2016–2019*
30. Oscar Jarillo *2015–2019*
29. Azar Hasanov *2016–2019*
28. Tong Bai *2015–2019*
27. Lia Lajoie *2016–2019*
26. Vladimir Li *2014–2018*
25. Aline Melo *2015–2018*
24. Paul El Khoury *2014–2018*
23. Kendra Johnson *2013–2017*
22. Xinming Wu *2014–2015*
21. Junwei Zhang *2013–2015*
20. Justin Rittgers *2011–2015*
19. Jieyi Zhou *2013–2014*
18. Chinaemerem Kanu *2011–2014*
17. Allison Knaak *2011–2014*
16. William Woodruff *2011–2014*
15. Jiajia Sun *2010–2014*
14. Cericia Martinez *2010–2015*
13. Luming Liang *2010–2014*
12. Patricia Rodrigues *2010–2014*

11. Norimitsu Nakata *2011–2013*
10. Harry Mahardika *2010–2013*
9. Filippo Broggini *2009–2013*
8. Trevor Irons *2008–2013*
7. Xiaoxiang Wang *2007–2012*
6. Mamoru Takanashi *2009–2011*
5. Werner Heigl *2007–2011*
4. Youngzhong Fan *2007–2010*
3. Ritupama Sarkar *2007–2010*
2. Barry Kirkendall *2006–2007*
1. Kurang Mehta *2006–2007*

- **MSc committees**

21. Jonah Bartrand *2019–2021*
20. Max Velasques *2019–2020*
19. Samir Jreij *2017–2018*
18. Thanyanat Akarapatima *2017–2018*
17. Andrew Pare *2016–2017*
16. Jacob Utley *2016–2017*
15. Colton Kohnke *2015–2016*
14. Jarred Eppehimer *2015–2016*
13. Staci Mueller *2015–2016*
12. Emily Butler *2015–2016*
11. Oscar Jarillo *2013–2015*
10. Paul El Khoury *2013–2014*
9. Guillaume Barnier *2012–2013*
8. Luiz Marcelo Martins *2012–2013*
7. Julio Frigerio *2010–2012*
6. Isabel White *2011–2012*
5. Christopher Engelsma *2009–2010*
4. Ali Araji *2009–2010*
3. Yongxia Liu *2008–2010*
2. Yong Ma *2007–2010*
1. John Mathewson *2007–2008*

EXTERNAL COMMITTEES

- Jirapat Charoensawan, PhD, **University of Auckland** *2025*
  Can Seismic Wave Speeds and Attenuation Detect Water in the Martian Crust?
- Yusuf Oluwatoki Yusuf, PhD, **Tampere University** *2024*
  Pathways to Robust Tomographic Full-Wave Radar Imaging of Small Solar System Bodies' Interior
- Haorui Peng, PhD, **Utrecht University** *2023*
  Data- and machine-learning-driven retrieval and imaging of seismic-reflection data in complex media
- Liisa-Ida Sorsa, PhD, **Tampere University** *2021*
  Full-wave radar tomography of complex, high-contrast targets: Imaging the interior structure of a small solar system body
- Modeste Irakarama, PhD, **University of Lorraine** *2016–2019*
  Towards reducing structural interpretation uncertainties using seismic data
- Fang Wang, PhD, **MINES ParisTech** *2014–2015*
  Waveform inversion based on wavefield decomposition

PEER-REVIEWED ARTICLES

Google Scholar ORCID

Entries marked by ★ indicate my graduate students as lead authors.

94. ★ Dorogy, N., Sava, P. C., 2026c. Interior imaging of asteroid (99942) Apophis using joint gravity-seismic inversion. Icarus, submitted for publication (ICARUS-D-26-00760)
93. Sava, P. C., Zhu, F., 2026. Passive radar detection of uncataloged low Earth orbit space debris. IEEE Transactions on Aerospace and Electronic Systems, submitted for publication (TAES-2026-4715)
92. ★ Dorogy, N., Sava, P. C., 2026b. Eigenmode recovery with orbiting laser Doppler vibrometers. Mechanical Systems and Signal Processing, submitted for publication (MSSP26-7245)

91. ★ Zha, M., Avseth, P., Sava, P. C., 2026a. Rock physics modeling reveals large uncertainty in midcrustal liquid water on Mars. Earth and Planetary Science Letters 691, 120235. doi:10.1016/j.epsl.2026.120235

2025

90. ★ Dorogy, N., Sava, P. C., Asphaug, E., 2025. Seismic interferometry with mobile spaceborne platforms. Advances in Space Research 76 (8), 4747–4764. doi:10.1016/j.asr.2025.07.020

89. Day, J. D., He, J., Shragge, J., Sava, P. C., Lanigan, E. L., Dao, G., Su, W., 2025. Defect imaging via adjoint-state-based reverse-time migration. NDT & E International 155, 103425. doi:10.1016/j.ndteint.2025.103425

88. ★ Almuteri, K., Sava, P. C., Shragge, J., 2025. Reverse time migration of mobile marine vibrator data. Geophysics 90 (2), S29–S39. doi:10.1190/geo2023-0667.1

2024

87. ★ Almuteri, K., Shragge, J., Sava, P. C., 2024a. Modeling acoustic wavefields from moving sources in the presence of a time-varying free surface. Geophysics 89 (3), T125–T135. doi:10.1190/geo2023-0527.1

86. ★ Pawelec, I., Sava, P. C., 2024. High dynamic range land wavefield reconstruction from randomized acquisition. Geophysics 89 (6), V563–V572. doi:10.1190/geo2023-0506.1

85. ★ Almuteri, K., Shragge, J., Sava, P. C., 2024c. Modeling the seismic wavefield of moving marine vibrator source. Geophysics 89 (1), T1–T11. doi:10.1190/geo2023-0176.1

2023

84. ★ Almuteri, K., Sava, P. C., 2023. Seismic deghosting using convolutional neural networks. Geophysics 88 (3), V113–V125. doi:10.1190/geo2021-0521.1

83. Pearce, E., Booth, A., Rost, S., Sava, P. C., Konuk, T., Brisbourne, A., Hubbard, B., Jones, I., 2023. Characterising ice slabs in firn using seismic full waveform inversion, a sensitivity study. Journal of Glaciology 69 (277), 1419–1433. doi:10.1017/jog.2023.30

2022

82. Pearce, E., Booth, A., Rost, S., Sava, P. C., Konuk, T., Brisbourne, A., Hubbard, B., Jones, I., 2022. A synthetic study of acoustic full waveform inversion to improve seismic modelling of firn. Annals of Glaciology 63 (87-89), 44–48. doi:10.1017/aog.2023.10

81. Putzig, N., Foss, F., Campbell, B., Holt, J., Perry, M., Smith, I., Russell, A., Nerozzi, S., Christoffersen, M., Mueller, I., Sava, P. C., 2022a. New views of the internal structure of Planum Boreum from enhanced 3D imaging of Mars Reconnaissance Orbiter Shallow Radar data. Planetary Science Journal 3 (11), 259. doi:10.3847/PSJ/ac9d3b

2021

80. ★ Rapstine, T., Sava, P. C., 2021. Removing residual airborne sensor motion for measuring seismic signals from a drone. Journal of Unmanned Vehicle Systems 9 (3), 129–148. doi:10.1139/juvs-2020-0017

79. ★ Pawelec, I., Wakin, M., Sava, P. C., 2021. Missing trace reconstruction for 2D land seismic data with randomized sparse sampling. Geophysics 86 (3), P25–P36. doi:10.1190/geo2020-0683.1

2020

78. He, J., Rocha, D., Sava, P. C., 2020. Guided wave tomography based on least-squares reverse-time migration. Structural Health Monitoring 19 (4), 1237–1249. doi:10.1177/1475921719880296

77. ★ Courville, S., Sava, P. C., 2020. Speckle noise attenuation in orbital laser vibrometer seismology. Acta Astronautica 172, 16–32. doi:10.1016/j.actaastro.2020.03.016

76. ★ Aragao, O., Sava, P. C., 2020b. Elastic full waveform inversion with probabilistic petrophysical clustering. Geophysical Prospecting 68 (4), 1341–1355. doi:10.1111/1365-2478.12910

75. ★ Aragao, O., Sava, P. C., 2020c. Elastic full-waveform inversion with probabilistic petrophysical model constraints. Geophysics 85 (2), R101–R111. doi:10.1190/GEO2019-0285.1

74. Sava, P. C., Asphaug, E., 2019b. Seismology on small planetary bodies by orbital laser Doppler vibrometry. Advances in Space Research 64 (2), 527–544. doi:10.1016/j.asr.2019.04.017 2019

73. He, J., Rocha, D. C., Leser, P. E., Sava, P. C., Leser, W. P., 2019. Least-squares reverse time migration (LSRTM) for damage imaging using lamb waves. Smart Materials and Structures 28 (6), 065010. doi:10.1088/1361-665X/ab14b1

72. Yue, Y., Sava, P. C., Qian, Z., Yang, J., Zou, Z., 2019. Least-squares Gaussian beam migration in elastic media. Geophysics 84 (4), S329–S340. doi:10.1190/geo2018-0391.1

71. ★ Rocha, D., Sava, P. C., Shragge, J., Witten, B., 2019. 3D passive wavefield imaging using the energy norm. Geophysics 84 (2), KS13–KS27. doi:10.1190/GEO2018-0251.1

70. Irakarama, M., Cupillard, P., Caumon, G., Sava, P. C., Edwards, J., 2019. Appraising structural interpretations using seismic data—Theoretical elements. Geophysics 84 (2), N29–N40. doi:10.1190/GEO2018-0128.1

69. ★ Lim, I., Sava, P. C., 2018a. High-resolution multicomponent distributed acoustic sensing. Geophysical Prospecting 66 (6), 1111–1122. doi:10.1111/1365-2478.12634 2018

68. Sava, P. C., Asphaug, E., 2018a. 3D radar wavefield migration of comet interiors. Advances in Space Research 62 (5), 1146–1164. doi:10.1016/j.asr.2018.06.009

67. Sava, P. C., Asphaug, E., 2018b. 3D radar wavefield tomography of comet interiors. Advances in Space Research 61 (8), 2198–2213. doi:10.1016/j.asr.2018.01.040

66. ★ Rocha, D., Sava, P. C., 2018a. Elastic least-squares reverse time migration using the energy norm. Geophysics 83 (3), S237–S248. doi:10.1190/GEO2017-0465.1

65. ★ Rocha, D., Sava, P. C., Guitton, A., 2018a. 3D acoustic least-squares reverse time migration using the energy norm. Geophysics 83 (3), S261–S270. doi:10.1190/geo2017-0466.1

64. ★ Lim, I., Sava, P. C., 2018b. Multicomponent distributed acoustic sensing: Concept and theory. Geophysics 83 (2), P1–P8. doi:10.1190/geo2017-0327.1

63. ★ Rapstine, T., Sava, P. C., Arias, E., 2018. Airborne seismic data acquisition using stereo vision. Journal of Unmanned Vehicle Systems 6 (1), 31–42. doi:10.1139/juvs-2017-0019

62. ★ Duan, Y., Sava, P. C., 2017a. 3D angle decomposition for elastic reverse time migration. Geophysics 82 (5), S377–S389. doi:10.1190/geo2016-0565.1 2017

61. ★ Diaz, E., Sava, P. C., 2017. Cascaded wavefield tomography and inversion using extended common image point gathers: a case study. Geophysics 82 (5), S391–S401. doi:10.1190/geo2016-0318.1

60. ★ Duan, Y., Guitton, A., Sava, P. C., 2017. Elastic least-squares reverse time migration. Geophysics 82 (4), S315–S325. doi:10.1190/GEO2016-0564.1

59. ★ Rocha, D., Tanushev, N., Sava, P. C., 2017b. Anisotropic elastic wavefield imaging using the energy norm. Geophysics 82 (3), S225–S234. doi:10.1190/GEO2016-0424.1

58. ★ Duan, Y., Sava, P. C., 2016b. Elastic wavefield tomography with physical model constraints. Geophysics 81 (6), R447–R456. doi:10.1190/geo2015-0508.1 2016

57. ★ Rocha, D., Tanushev, N., Sava, P. C., 2016d. Isotropic elastic wavefield imaging using the energy norm. Geophysics 81 (4), S207–S219. doi:10.1190/geo2015-0487.1

56. ★ Rocha, D., Tanushev, N., Sava, P. C., 2016b. Acoustic wavefield imaging using the energy norm. Geophysics 81 (4), S151–S163. doi:10.1190/geo2015-0486.1

55. ★ Diaz, E., Sava, P. C., 2016. Understanding the reverse time migration backscattering: noise or signal? Geophysical Prospecting 64 (3), 581–594. doi:10.1111/1365-2478.12232

54. ★ Duan, Y., Sava, P. C., 2015b. Scalar imaging condition for elastic reverse time migration. Geophysics 80 (4), S127–S136. doi:10.1190/geo2014-0453.1 2015

53. ★ Perrone, F., Sava, P. C., 2015a. Image-warping waveform tomography. Geophysical Prospecting 63 (5), 1050–1069. doi:10.1111/1365-2478.12225

52. ★ Diaz, E., Sava, P. C., 2015d. Wavefield tomography using reverse time migration backscattering. Geophysics 80 (1), R57–R69. doi:10.1190/GEO2014-0100.1

51. ★ Yang, T., Sava, P. C., 2015. Image-domain wavefield tomography with extended common-image-point gathers. Geophysical Prospecting 63 (5), 1086–1096. doi:10.1111/1365-2478.12204

50. Khoury, P. E., Revil, A., Sava, P. C., 2015. Seismoelectric beamforming imaging: a sensitivity analysis. Geophysical Journal International 201 (3), 1781–1800. doi:10.1093/gji/ggv117

49. Grimm, R., Stillman, D., Sava, P. C., Ittharat, D., 2015. Radio reflection imaging of asteroid and comet interiors II: Results and Recommendations. Advances in Space Research 55 (9), 2166–2176. doi:10.1016/j.asr.2015.01.038

48. Sava, P. C., Alkhalifah, T., 2015. Anisotropy signature in reverse-time migration extended images. Geophysical Prospecting 63 (2), 271–282. doi:10.1111/1365-2478.12189

47. Sava, P. C., Ittharat, D., Grimm, R., Stillman, D., 2015b. Radio reflection imaging of asteroid and comet interiors I: Acquisition and imaging theory. Advances in Space Research 55 (9), 2149–2165. doi:10.1016/j.asr.2014.10.021

46. ★ Perrone, F., Sava, P. C., Panizzardi, J., 2015. Wavefield tomography based on local image correlations. Geophysical Prospecting 63 (1), 35–54. doi:10.1111/1365-2478.12163

45. Sava, P. C., Revil, A., Karaoulis, M., 2014. High definition cross-well electrical resistivity imaging using seismoelectric focusing and image-guided inversion. Geophysical Journal International 198 (2), 880–894. doi:10.1093/gji/ggu166 2014

44. ★ Perrone, F., Sava, P. C., Andreoletti, C., Bienati, N., 2014. Linearized wave-equation migration velocity analysis by image warping. Geophysics 79 (2), S35–S46. doi:10.1190/GEO2012-0526.1

43. Zabotin, N., Godin, O., Sava, P. C., Zabotina, L., 2014. Tracing three-dimensional acoustic wavefronts in inhomogeneous, moving media. Journal of Computational Acoustics 22 (2), 1450002. doi:10.1142/S0218396X14500027

42. Revil, A., Barnier, G., Karaoulis, M., Sava, P. C., Jardani, A., Kulessa, B., 2014a. Seismoelectric coupling in unsaturated porous media: theory, petrophysics, and saturation front localization using an electroacoustic approach. Geophysical Journal International 196 (2), 867–884. doi:10.1093/gji/ggt440

41. Fomel, S., Sava, P. C., Vlad, I., Liu, Y., Bashkardin, V., 2013. Madagascar: open-source software project for multidimensional data analysis and reproducible computational experiments. Journal of Open Research Software 1 (1), e8. doi:10.5334/jors.ag 2013

40. ★ Yang, T., Shragge, J., Sava, P. C., 2013. Illumination compensation for image-domain wavefield tomography. Geophysics 78 (5), U65–U76. doi:10.1190/GEO2012-0278.1

39. Shragge, J., Yang, T., Sava, P. C., 2013a. Time-lapse image-domain tomography using adjoint-state methods. Geophysics 78 (4), A29–A33. doi:10.1190/GEO2013-0044.1

38. Sava, P. C., Alkhalifah, T., 2013. Wide-azimuth angle gathers for anisotropic wave-equation migration. Geophysical Prospecting 61 (1), 75–91. doi:10.1111/j.1365-2478.2012.01024.x

37. ★ Godwin, J., Sava, P. C., 2013. A comparison of shot-encoding schemes for wave-equation migration. Geophysical Prospecting 61 (s1), 391–408. doi:10.1111/j.1365-2478.2013.01125.x

36. Sava, P. C., Revil, A., 2012. Virtual electrode current injection using seismic focusing and seismoelectric conversion. Geophysical Journal International (Express Letter) 191, 1205–1209. doi:10.1111/j.1365-246X.2012.05700.x 2012

35. ★ Perrone, F., Sava, P. C., 2012a. Wave-equation migration with dithered plane waves. Geophysical Prospecting 60 (3), 444–465. doi:10.1111/j.1365-2478.2011.01011.x

34. Zabotin, N., Godin, O., Sava, P. C., Zabotina, L., 2012. Acoustic wavefront tracing in inhomogeneous, moving media. Journal of Computational Acoustics 20 (3), 1250009. doi:10.1142/S0218396X12500099

33. ★ Yan, J., Sava, P. C., 2012. Elastic wave-mode separation for tilted transverse isotropy media. Geophysical Prospecting 60 (1), 29–48. doi:10.1111/j.1365-2478.2011.00964.x

32. Sava, P. C., 2011a. Micro-earthquake monitoring with sparsely sampled data. Journal of Petroleum Exploration and Production Technology 1 (1), 43–49. doi:10.1007/s13202-011-0005-7 2011

31. Alkhalifah, T., Sava, P. C., 2011. Migration using a transversely isotropic medium with symmetry normal to the reflector dip. International Journal of Geophysics 2011, 530106. doi:10.1155/2011/530106

30. ★ Yang, T., Sava, P. C., 2011b. Wave-equation migration velocity analysis with time-shift imaging. Geophysical Prospecting 59 (4), 635–650. doi:10.1111/j.1365-2478.2011.00954.x

29. ★ Yan, J., Sava, P. C., 2011. Improving the efficiency of elastic wave-mode separation for heterogeneous tilted transverse isotropic media. Geophysics 76 (4), T65–T78. doi:10.1190/1.3581360

28. Sava, P. C., Vlad, I., 2011b. Wide-azimuth angle gathers for wave-equation migration. Geophysics 76 (3), S131–S141. doi:10.1190/1.3560519

27. Sava, P. C., Vasconcelos, I., 2011. Extended imaging conditions for wave-equation migration. Geophysical Prospecting 59 (1), 35–55. doi:10.1111/j.1365-2478.2010.00888.x

26. Vasconcelos, I., Sava, P. C., Douma, H., 2010. Nonlinear extended images via image-domain interferometry. Geophysics 75 (6), SA105–SA115. doi:10.1190/1.3494083 2010

25. ★ Yang, T., Sava, P. C., 2010b. Moveout analysis of wave-equation extended images. Geophysics 75 (4), S151–S161. doi:10.1190/1.3460296

24. Alkhalifah, T., Sava, P. C., 2010b. A transversely isotropic medium with a tilted symmetry axis normal to the reflector. Geophysics (Letters) 75 (3), A19–A24. doi:10.1190/1.3409114

23. ★ Xuan, R., Sava, P. C., 2010. Probabilistic microearthquake location for reservoir monitoring. Geophysics 75 (3), MA9–MA26. doi:10.1190/1.3417757

22. ★ Yan, J., Sava, P. C., 2009c. Elastic wave-mode separation for VTI media. Geophysics 74 (5), WB19–WB32. doi:10.1190/1.3184014 2009

21. ★ Ma, Y., Sava, P. C., 2009a. The effects of multi-scale heterogeneities on wave-equation migration. Journal of Seismic Exploration 18 (4), 357–383

20. Silva, E., Sava, P. C., 2009b. Modelling and migration with orthogonal isochron rays. Geophysical Prospecting 57 (5), 773–784. doi:10.1111/j.1365-2478.2008.00754.x

19. Silva, E., Sava, P. C., 2009a. Accelerating wavefield extrapolation isochron-ray migration. Journal of Seismic Exploration 18, 21–42

18. Sava, P. C., Fomel, S., 2008. High-order kernels for Riemannian wavefield extrapolation. Geophysical Prospecting 56 (1), 49–60. doi:10.1111/j.1365-2478.2007.00660.x 2008

17. ★ Yan, J., Sava, P. C., 2008c. Isotropic angle-domain elastic reverse-time migration. Geophysics 73 (6), S229–S239. doi:10.1190/1.2981241

16. Sava, P. C., Vlad, I., 2008. Numeric implementation of wave-equation migration velocity analysis operators. Geophysics 73 (5), VE145–VE159. doi:10.1190/1.2953337

15. Sava, P. C., Poliannikov, O., 2008. Interferometric imaging condition for wave-equation migration. Geophysics 73 (2), S47–S61. doi:10.1190/1.2838043

14. Rosales, D., Fomel, S., Biondi, B., Sava, P. C., 2008. Wave-equation angle-domain common-image gathers for converted waves. Geophysics 73 (1), S17–S26. doi:10.1190/1.2821193

13. Sava, P. C., 2007a. Stereographic imaging condition for wave-equation migration. Geophysics (Letters) 72 (6), A87–A91. doi:10.1190/1.2781582 2007

12. Sava, P. C., Fomel, S., 2006b. Imaging overturning reflections by Riemannian wavefield extrapolation. Journal of Seismic Exploration 15 (3), 209–223 2006

11. Sava, P. C., Fomel, S., 2006d. Time-shift imaging condition in seismic migration. Geophysics 71 (6), S209–S217. doi:10.1190/1.2338824

10. Sava, P. C., Fomel, S., 2005b. Riemannian wavefield extrapolation. Geophysics 70 (3), T45–T56. doi:10.1190/1.1925748 2005

9. Sava, P. C., Biondi, B., Etgen, J., 2005. Wave-equation migration velocity analysis by focusing diffractions and reflections. Geophysics 70 (3), U19–U27. doi:10.1190/1.1925749

8. Sava, P. C., Guitton, A., 2005. Multiple attenuation in the image space. Geophysics 70 (1), V10–V20. doi:10.1190/1.1852789

7. Sava, P. C., Biondi, B., 2004b. Wave-equation migration velocity analysis. I. Theory. Geophysical Prospecting 52 (6), 593–606. doi:10.1111/j.1365-2478.2004.00447.x 2004

6. Sava, P. C., Biondi, B., 2004c. Wave-equation migration velocity analysis. II. Subsalt imaging examples. Geophysical Prospecting 52 (6), 607–623. doi:10.1111/j.1365-2478.2004.00448.x

5. Sava, P. C., Fomel, S., 2003. Angle-domain common image gathers by wavefield continuation methods. Geophysics 68 (3), 1065–1074. doi:10.1190/1.1581078 2003

4. Sava, P. C., 2003. Prestack residual migration in the frequency domain. Geophysics 68 (2), 634–640. doi:10.1190/1.1567233

3. Fomel, S., Sava, P. C., Rickett, J., Claerbout, J. F., 2003. The Wilson–Burg method of spectral factorization with application to helical filtering. Geophysical Prospecting 51 (5), 409–420. doi:10.1046/j.1365-2478.2003.00382.x

2. Rickett, J., Sava, P. C., 2002. Offset and angle-domain common image-point gathers for shot-profile migration. Geophysics 67 (3), 883–889. doi:10.1190/1.1484531 2002

1. Sava, P. C., Fomel, S., 2001. 3-D traveltime computation using Huygens wavefront tracing. Geophysics 66 (3), 883–889. doi:10.1190/1.1444977 2001

OTHER ARTICLES

Entries marked by ★ indicate my graduate students as lead authors.

10. Binzel, R., Barbee, B., Barnouin, O., Bell, J., Bierhaus, E., Birlan, M., Boley, A., Bottke, W., Brozovic, M., Chesley, S., Cahill, J., Campins, H., Cheng, A., Chodas, P., Daly, T., Danchi, W., DeMartini, J., DeMeo, F., Durda, D., Freeman, A., Hirabayashi, M., Kim, Y., Lim, L., Marsset, M., Michel, P., Moskovitz, N., Nolan, M., Nuth, J., Park, R., Parker, A., Raymond, C., Reh, K., Richardson, D., Sava, P. C., Scheeres, D., Souami, D., Souchay, J., Sunshine, J., Taylor, P., Venditti, F., Virkki, A., Yeomans, D., 2021. Apophis 2029: Decadal Opportunity for the Science of Planetary Defense. Bulletin of the AAS (Planetary Science and Astrobiology Decadal Survey 2023–2032 white paper) 53 (4). doi:10.3847/25c2cfeb.f87e0599
9. Haynes, M., Virkki, A., Venditti, F., Hickson, D., Pinilla-Alonso, N., Brisset, J., Benner, L., Raymond, C., Lazio, J., Freeman, A., Castillo-Rogez, J., Asphaug, E., Taylor, P., Herique, A., Kofman, W., Sava, P. C., Pajola, M., Lucchetti, A., Pra, M. N. D., Rivera-Valentin, E., 2021. Asteroids inside out: Radar Tomography. Bulletin of the AAS (Planetary Science and Astrobiology Decadal Survey 2023–2032 white paper) 53 (4). doi:10.3847/25c2cfeb.6ef5e6e8
8. Courville, S., Putzig, N. E., Perry, M. R., Patterson, G. W., Morgan, G. A., Gemer, A. J., Sava, P. C., Mikesell, T. D., Degner, R., Bramson, A. M., Gulick, S. P. S., Paulsson, B., Amos, C. C., Weber, R., Panning, M., Schmerr, N., 2021. Developing active source seismology for Planetary Science. Bulletin of the AAS (Planetary Science and Astrobiology Decadal Survey 2023–2032 white paper) 53 (4). doi:10.3847/25c2cfeb.ef2d617d
7. Li, L., Caers, J., Sava, P. C., 2015. Assessing seismic uncertainty via geostatistical velocity-model perturbation and image registration: An application to subsalt imaging. The Leading Edge 34 (9), 1064–1070. doi:10.1190/tle34091064.1 2015
6. Biondi, B., Nichols, D., Sava, P. C., 2014. Introduction to this special section: Imaging migration. The Leading Edge 33 (9), 950. doi:10.1190/tle33090950.1 2014
5. ★ Diaz, E., Sava, P. C., Yang, T., 2013. Data-domain and image-domain wavefield tomography. The Leading Edge 32 (9), 1064–1072. doi:10.1190/tle32091064.1 2013
4. Sava, P. C., 2010. Introduction to this special section: High-performance computing. The Leading Edge 29 (1), 42–43. doi:10.1190/1.3293458 2010
3. Sava, P. C., Hill, S. J., 2009. Overview and classification of wavefield seismic imaging methods. The Leading Edge 28 (2), 170–183. doi:10.1190/1.3086052 2009
2. Vasconcelos, I., Snieder, R., Sava, P. C., Taylor, T., Malin, P., Chavarria, A., 2008. Drill bit noise illuminates the San Andreas fault. EOS, Transactions, American Geophysical Union 89 (38), 349. doi:10.1029/2008EO380001 2008
1. Sava, P. C., 2006. Subsalt exploration and development: Imaging, interpretation, and drilling—what have we learned? 2006 SEG/EAGE Summer Research Workshop. The Leading Edge 25 (11), 1370–1376. doi:10.1190/1.2399267 2006

Google Scholar ORCID

CONFERENCE PROCEEDINGS & PRESENTATIONS

Entries marked by ★ indicate my graduate students as lead authors.

212. ★ Zha, M., Avseth, P., Sava, P. C., 2026b. Rock physics modeling reveals large uncertainty in midcrustal liquid water on Mars. In: Abstracts. Fall meeting of the American Geophysical Union
211. Switala, R., George, A., Long, Z., Siegfried, M., Dugan, B., Venturelli, R., Sava, P. C., Martin, E., Haines, S., Marquardt, M., Bowling, R., Walker, A., Berglind, J., Passerella, B., Shragge, J., 2026. A multiphysics characterization of the bifurcation of Lithia and Critter springs due to travertine deposition. In: Abstracts. Fall meeting of the American Geophysical Union

210. Yang, J., Ganesh, I., Christoffersen, M., Sava, P. C., 2026. Migration velocity analysis and depth imaging of the Martian subsurface with RIMFAX. In: Abstracts. Fall meeting of the American Geophysical Union

209. Sava, P. C., Dorogy, N., 2026. Laser Doppler Vibrometry for passive 3D imaging of planetary subsurfaces. In: Abstracts. Apophis T–3 Years: Knowledge Opportunities for the Science of Planetary Defense

208. ★ Dorogy, N., Sava, P. C., 2026a. 3D interior imaging of 99942 Apophis using the Seismic Instrument for Asteroids. In: Abstracts. Apophis T–3 Years: Knowledge Opportunities for the Science of Planetary Defense

2025

207. Perry, M., Foss, F., Sava, P. C., 2025a. Addressing phase distortions in orbital radar sounder data for high-resolution wavefield imaging. In: Abstracts. Fall meeting of the American Geophysical Union

206. Aguilar, R., Holt, J., Foss, F., Russell, A., Christoffersen, M., Putzig, N., Nerozzi, S., Perry, M., Morgan, G., Sava, P. C., Chuang, F., Campbell, B., Meng, T., 2025. Constraining surface velocity estimations of debris-covered glaciers in Eastern Hellas, Mars, with a new 3D SHARAD radargram. In: Abstracts. Fall meeting of the American Geophysical Union

205. Perry, M., Putzig, N., Foss, F., Morgan, G., Russell, M., Byrne, D., Sava, P. C., Campbell, B., 2025b. Planetary orbital radar processing and simulation system. In: Abstracts. 56^{th} Lunar and Planetary Science Conference

2024

204. ★ Dorogy, N., Sava, P. C., 2024a. Remote seismic exploration of small planetary bodies. In: Abstracts. Fall meeting of the American Geophysical Union

203. Ganesh, I., Christoffersen, M., Sava, P. C., 2024. Migration velocity analysis of RIMFAX observations of jezero's subsurface. In: Abstracts. Fall meeting of the American Geophysical Union

202. Perry, M., Foss, F., Putzig, N., Morgan, G., Sava, P. C., Russell, M., Russell, A., Chuang, F., Holt, J., Christoffersen, M., Aguilar, R., Campbell, B., Margheri, A., 2024. Recent advancements in 3D orbital radar imaging of the Martian subsurface. In: Abstracts. Tenth International Conference on Mars

201. ★ Almuteri, K., Shragge, J., Sava, P. C., 2024b. Modeling marine vibrator data in the presence of a time-varying free surface. In: Expanded abstracts. 85^{th} EAGE Annual Conference & Exhibition, Workshop Programme, Oslo, Norway, pp. 1–5. doi:10.3997/2214-4609.2024101843

200. ★ Dorogy, N., Sava, P. C., 2024b. Remote sensing imaging of asteroid 99942 Apophis. In: Abstracts. Apophis T–5 Years: Knowledge of Opportunities for the Science of Planetary Defense

2023

199. ★ Silva, W., Sava, P. C., 2023. Nonlinear seismic imaging with full wavefield data. In: Abstracts. Fall meeting of the American Geophysical Union

198. Asphaug, E., Sava, P. C., 2023. Remote Sensing Seismology by Laser Doppler Vibrometry. In: Abstracts. Arizona Space Institute Symposium

197. Day, J., Aktharuzzaman, M., He, J., Sava, P. C., Shragge, J., Lanigan, E., Duquette, D., Andreev, D., Katsarelis, C., 2023a. Material characterization for additively manufactured parts via full waveform inversion. In: Abstracts. 50th Annual Review of Progress in Quantitative Nondestructive Evaluation, pp. QNDE2023–118373

196. Day, J., He, J., Shragge, J., Lanigan, E., Duquette, D., Sava, P. C., 2023b. Impedance-based reverse time migration for hole imaging using ultrasonic bulk waves. In: Abstracts. 50th Annual Review of Progress in Quantitative Nondestructive Evaluation, pp. QNDE2023–118549

2022

195. Putzig, N., Morgan, G., Foss, F., Holt, J., Perry, M., Smith, I., Russell, A., Nerozzi, S., Sava, P. C., 2022b. New insights from advanced 3-D radar imaging of the Martian North polar cap and mid-latitude ices and volcanics. In: Abstracts. Fall meeting of the American Geophysical Union

194. Sava, P. C., Asphaug, E., 2022. Interferometric seismic imaging of asteroid 99942 Apophis. In: Abstracts. Apophis T–7 Years: Knowledge of Opportunities for the Science of Planetary Defense

193. ★ Pawelec, I., Wakin, M., Sava, P. C., 2022. Multichannel compressive sensing for seismic data reconstruction using joint sparsity. In: Expanded abstracts. 92^{nd} Annual International Meeting, SEG, pp. 2636–2640. doi:10.1190/image2022-3751512.1

192. ★ Almuteri, K., Sava, P. C., Shragge, J., 2022a. Reverse-time migration of mobile marine vibrator data. In: Expanded abstracts. 92^{nd} Annual International Meeting, SEG, pp. 2694–2698. doi:10.1190/image2022-3751755.1

191. ★ Almuteri, K., Shragge, J., Sava, P. C., 2022b. Finite-difference modeling of marine vibrator sources. In: Expanded abstracts. 92^{nd} Annual International Meeting, SEG, pp. 2561–2565. doi:10.1190/image2022-3746278.1

190. Perry, M., Hickson, D., Morgan, G., Russell, M., Foss, F., Sava, P. C., Campbell, B., Kopf, A., Putzig, N., 2022. Planetary orbital radar processing and simulation system. In: Abstracts. 53^{rd} Lunar and Planetary Science Conference, p. 2390

2021

189. ★ Pawelec, I., Sava, P. C., 2021. Low frequency recovery for ambient seismic data from ultra-dense linear arrays. In: Expanded abstracts. 91^{st} Annual International Meeting, SEG, pp. 2066–2070. doi:10.1190/segam2021-3594047.1

188. ★ Aragao, O., Sava, P. C., 2021d. Viscoelastic full-waveform inversion with spatial probabilistic petrophysical constraints. In: Expanded abstracts. 91^{st} Annual International Meeting, SEG, pp. 642–646. doi:10.1190/segam2021-3582991.1

187. ★ Almuteri, K., Sava, P. C., 2021. A convolutional neural network approach for ghost removal. In: Expanded abstracts. 91^{st} Annual International Meeting, SEG, pp. 2550–2554. doi:10.1190/segam2021-3584059.1

186. Pearce, E., Booth, A., Rost, S., Sava, P. C., Brisbourne, A., Jones, I., Hubbard, B., 2021. Full Waveform Inversion (FWI) for glaciological seismic data – Improving the seismic characterisation of glacier firn. In: Abstracts. Annual meeting of the European Geoscience Union. doi:10.5194/egusphere-egu21-916

185. ★ Aragao, O., Sava, P. C., 2021c. Incorporating probabilistic petrophysical information into elastic full waveform inversion. In: EAGE Subsalt imaging workshop – Acoustic and Elastic Wave Equation Imaging and Velocity Model Building, Amsterdam, The Netherlands. 82^{nd} EAGE Annual Conference & Exhibition, Workshop Programme, pp. 1–5. doi:10.3997/2214-4609.202012064

184. ★ Aragao, O., Sava, P. C., 2021b. Explicit control of numerical dispersion and instability in elastic wavefield modeling and inversion. In: Expanded abstracts. 82^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.202112415

183. ★ Aragao, O., Sava, P. C., 2021a. Elastic anisotropic full waveform inversion using probabilistic petrophysical constraints. In: Expanded abstracts. 82^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.202010191

2020

182. ★ Aragao, O., Sava, P. C., 2020a. Elastic full-waveform inversion with petrophysical information in a probabilistic approach. In: Elastic Imaging and Full waveform inversion for hydrocarbon exploration and production. 3rd Annual Meeting, SIAM Texas-Louisiana Section

181. ★ Aragao, O., Sava, P. C., 2020e. A probabilistic approach to incorporate petrophysical information into elastic fwi. In: Value in Elastic Imaging and Elastic Full-waveform Inversion. Research Workshop, SEG

180. ★ Aragao, O., Sava, P. C., 2020d. Elastic full-waveform inversion with spatial probabilistic petrophysical constraints. In: Expanded abstracts. 90^{th} Annual International Meeting, SEG, pp. 730–734. doi:10.1190/segam2020-3426914.1

179. ★ Pawelec, I., Sava, P. C., 2020. Multiscale analysis and denoising of near offset vibroseis data. In: Expanded abstracts. 90^{th} Annual International Meeting, SEG, pp. 3264–3268. doi:10.1190/segam2020-3427285.1

178. Sava, P. C., Asphaug, E., 2020. Non-contact seismology on asteroid 99942 Apophis. In: Abstracts. Apophis T–9 Years: Knowledge of Opportunities for the Science of Planetary Defense

177. Courville, S., Putzig, N., Sava, P. C., Mikesell, T., Perry, M., 2020a. ARES and Artemis: The autonomous roving exploration system for active source seismology on the Moon. In: Abstracts. Lunar Surface Science Workshop

176. Pearce, E., Booth, A., Sava, P. C., Jones, I., 2020. Seismic Full Waveform Inversion (FWI) to characterise the structure of firn. In: Abstracts. Annual meeting of the European Geoscience Union. doi:10.5194/egusphere-egu2020-5307

175. Courville, S., Putzig, N., Sava, P. C., Perry, M., Mikesell, T., 2020b. ARES: The autonomous roving exploration system for active source seismology on the Moon and Mars. In: Abstracts. 51^{st} Lunar and Planetary Science Conference

174. ★ Aragao, O., Pawelec, I., Sava, P. C., 2020. Evaluation of two numerical optimization schemes for elastic full waveform inversion. In: Expanded abstracts. EAGE 2020 Annual Conference & Exhibition Online, pp. 1–5. doi:10.3997/2214-4609.202011989

2019

173. Pearce, E., Booth, A., Stuart, G., Hubbard, B., Brisbourne, A., Sava, P. C., 2019. Seismic Full Waveform Inversion: Feasibility for measuring firn properties. In: Abstracts. Fall meeting of the American Geophysical Union

172. ★ Courville, S., Putzig, N., Perry, M., Sava, P. C., 2019. Preparing to image the martian subsurface: planetary active-source seismology vs. radar, and the ARES concept. In: Abstracts. Fall meeting of the American Geophysical Union

171. ★ Aragao, O., Sava, P. C., 2019a. Elastic full waveform inversion with probabilistic petrophysical model constraints. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 1425–1429. doi:10.1190/segam2019-3215944.1

170. ★ Aragao, O., Sava, P. C., 2019b. Elastic wavefield tomography with probabilistic petrophysical clustering. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 1420–1424. doi:10.1190/segam2019-3215800.1

169. ★ Kohnke, C., Sava, P. C., 2019. Inversion of vector-acoustic data in a local domain. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 1531–1535. doi:10.1190/segam2019-3216357.1

168. ★ Lim, I., Sava, P. C., 2019. Seismic imaging with optimal source wavefield reconstruction. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 4156–4160. doi:10.1190/segam2019-3215813.1

167. ★ Lim, I., Sava, P. C., Schultz, W., Simmons, J., 2019. Distributed acoustic sensing elastic least-squares reverse time migration. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 994–998. doi:10.1190/segam2019-3215816.1

166. ★ Pawelec, I., Sava, P. C., Wakin, M., 2019. Wavefield reconstruction using wavelet transform. In: Expanded abstracts. 89^{th} Annual International Meeting, SEG, pp. 147–151. doi:10.1190/segam2019-3216535.1

165. Amos, C., Putzig, N., Perry, M., Paulsson, B., Thornburg, J., Wylie, M., Hardiman, H., He, R., Zacny, K., Sava, P. C., Courville, S., Mikesell, T., 2019. Fiber optic geophones for use in planetary subsurface exploration. In: Abstracts. 50^{th} Lunar and Planetary Science Conference, p. 2623

164. ★ Courville, S., Sava, P. C., 2019. Speckle noise in orbital laser Doppler vibrometry. In: Abstracts. 50^{th} Lunar and Planetary Science Conference, p. 1720

163. Sava, P. C., Asphaug, E., 2019a. Orbital seismology by laser Doppler vibrometry. In: Abstracts. 50^{th} Lunar and Planetary Science Conference, p. 1709

2018

162. ★ Courville, S., Putzig, N., Sava, P. C., Mikesell, D., Perry, M., 2018. Ares: An autonomous roving exploration system for planetary active-source seismic data acquisition. In: Abstracts. Fall meeting of the American Geophysical Union

161. ★ Pawelec, I., Sava, P. C., 2018. Uncertainty quantification for land seismic acquisition. In: Expanded abstracts. 88^{th} Annual International Meeting, SEG, pp. 36–40. doi:10.1190/segam2018-2998544.1

160. ★ Kohnke, C., Sava, P. C., 2018. Localized FWI for time-lapse monitoring. In: Expanded abstracts. 88^{th} Annual International Meeting, SEG, pp. 1389–1392. doi:10.1190/segam2018-2998517.1

159. ★ Rocha, D., Sava, P. C., 2018b. Elastic reflection waveform inversion with petrophysical model constraints. In: Expanded abstracts. 88^{th} Annual International Meeting, SEG, pp. 1203–1207. doi:10.1190/segam2018-2997220.1

158. ★ Lim, I., Sava, P. C., 2018c. Multicomponent imaging with distributed acoustic sensing. In: Expanded abstracts. 88^{th} Annual International Meeting, SEG, pp. 4683–4687. doi:10.1190/segam2018-2997182.1

157. ★ Rocha, D., Sava, P. C., Shragge, J., Witten, B., 2018b. 3D microseismic wavefield imaging using the energy imaging condition. In: Expanded abstracts. 80^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201801579

156. Sava, P. C., 2018. Comet interior imaging using radar tomography. In: Abstracts. SIAM Imaging Science IS18, Bologna, Italy, pp. MS67–1

155. Sava, P. C., Asphaug, E., Haynes, M., 2018. 3D monostatic wavefield tomography of comet interiors. In: Abstracts. 49^{th} Lunar and Planetary Science Conference, p. 1996

2017

154. Sava, P. C., Asphaug, E., 2017. 3D high-resolution radar imaging of small body interiors. In: Abstracts. 49^{th} Annual Division of Planetary Science Meeting, Utah Valley Convention Center

153. ★ Lim, I., Sava, P. C., 2017b. Multicomponent imaging with distributed acoustic sensing. In: Post-convention workshop "Distributed Acoustic Sensing". 87^{th} Annual International Meeting, SEG

152. He, J., Leser, P., Sava, P. C., Leser, W., 2017. Least-squares reverse time migration (LSRTM) for damage imaging using Lamb waves. In: Expanded abstracts. 44^{th} Annual Review of Progress in Quantitative Nondestructive Evaluation, Utah Valley Convention Center

151. Irakarama, M., Cupillard, P., Caumon, G., Sava, P. C., 2017b. Appraising structural models using seismic data: problem and challenges. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 1897–1901. doi:10.1190/segam2017-17791860.1

150. ★ Rapstine, T., Sava, P. C., 2017. Measuring seismic signals with airborne stereo cameras. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 5943–5947. doi:10.1190/segam2017-17741848.1

149. ★ Rocha, D., Sava, P. C., 2017. Elastic least-squares reverse time migration using the energy norm. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 4370–4374. doi:10.1190/segam2017-17736905.1

148. ★ Rocha, D., Sava, P. C., Guitton, A., 2017a. Acoustic 3D least-squares reverse time migration using the energy norm. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 4411–4416. doi:10.1190/segam2017-17681731.1

147. ★ Duan, Y., Sava, P. C., 2017b. Robust 3D scalar imaging condition for elastic RTM. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 4478–4482. doi:10.1190/segam2017-17684205.1

146. ★ Lim, I., Sava, P. C., 2017a. High-resolution multicomponent distributed acoustic sensing. In: Expanded abstracts. 87^{th} Annual International Meeting, SEG, pp. 941–946. doi:10.1190/segam2017-17679990.1

145. Irakarama, M., Cupillard, P., Caumon, G., Sava, P. C., 2017a. Appraising structural interpretations using seismic data misfit functionals. In: Expanded abstracts. 79^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201700536

144. Asphaug, E., Baker, J., Choukroun, M., Furfaro, R., Sava, P. C., Scheeres, D. J., Schwartz, S. R., Swindle, T., Thangavelautham, J., 2017. Spacecraft penetrator for increasing knowledge of neos (spike). In: Abstracts. 48^{th} Lunar and Planetary Science Conference, p. 1981

143. Cellino, A., Hedman, N., Sava, P. C., Valsecchi, G., Zaitsev, A., 2016. Cosmic objects panel: Perspectives for the defense of human kind against the Near-Earth Objects hazard in the new millennium. In: International Seminars on Nuclear War and Planetary Emergencies, 49^{th} Session (Erice, Italy). World Scientific, pp. 207–216. doi:10.1142/9789811205217_0026 2016

142. Irakarama, M., Godefroy, G., Cupillard, P., Caumon, G., Sava, P. C., 2016. Reducing fault-related structural uncertainties by ranking models using seismic data misfit functions. In: Expanded abstracts. AAPG/SEG Advances in Subsurface Imaging and Mapping Workshop, Muscat, Oman

141. ★ Almeida, L., Wakin, M., Sava, P. C., 2016. Data denoising and interpolation using synthesis and analysis sparse regularization. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 4112–4117. doi:10.1190/segam2016-13880184.1

140. ★ Diaz, E., Sava, P. C., Singh, S., 2016a. Extended imaging, deconvolution, and two-way wavefields: a comparison. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 4487–4492. doi:10.1190/segam2016-13964128.1

139. ★ Diaz, E., Sava, P. C., Snieder, R., Singh, S., 2016b. Imaging the model through the wave equation. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 3708–3713. doi:10.1190/segam2016-13965475.1

138. ★ Rocha, D., Sava, P. C., Shragge, J., 2016a. Passive wavefield imaging using the energy norm. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 2580–2585. doi:10.1190/segam2016-13871584.1

137. ★ Lim, I., Sava, P. C., 2016. Multicomponent Distributed Acoustic Sensing. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 5597–5602. doi:10.1190/segam2016-13952981.1

136. ★ Duan, Y., Sava, P. C., 2016a. 3D angle decomposition for elastic reverse time migration. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 4178–4182. doi:10.1190/segam2016-13880483.1

135. ★ Duan, Y., Sava, P. C., Guitton, A., 2016. Elastic least-squares reverse time migration. In: Expanded abstracts. 86^{th} Annual International Meeting, SEG, pp. 4152–4157. doi:10.1190/segam2016-13880033.1

134. Sava, P. C., 2016. 3D interior tomography of comets and asteroids. In: Expanded abstracts. 49^{th} session of the International Seminars on Planetary Emergencies, Erice, Italy

133. ★ Rocha, D., Tanushev, N., Sava, P. C., 2016c. Anisotropic elastic wavefield imaging using the energy norm. In: Expanded abstracts. 78^{th} Annual International Meeting, EAGE, pp. 1–5. doi:10.3997/2214-4609.201601533

132. ★ Diaz, E., Sava, P. C., 2015a. Common-image point gathers tomography with illumination-based penalty functions. In: Post-convention workshop "The limit of FWI in subsurface parameter recovery". 85^{th} Annual International Meeting, SEG 2015

131. ★ Rocha, D., Sava, P. C., Tanushev, N., 2015a. Acoustic wavefield imaging using the energy norm. In: Expanded abstracts. 85^{th} Annual International Meeting, SEG, pp. 4085–4090. doi:10.1190/segam2015-5878824.1

130. ★ Rocha, D., Tanushev, N., Sava, P. C., 2015b. Elastic wavefield imaging using the energy norm. In: Expanded abstracts. 85^{th} Annual International Meeting, SEG, pp. 2124–2128. doi:10.1190/segam2015-5879138.1

129. ★ Duan, Y., Sava, P. C., 2015a. Elastic wavefield tomography with physical model constraints. In: Expanded abstracts. 85^{th} Annual International Meeting, SEG, pp. 1230–1235. doi:10.1190/segam2015-5883178.1

128. ★ Diaz, E., Sava, P. C., 2015b. Data domain wavefield tomography using local correlation functions. In: Expanded abstracts. 85^{th} Annual International Meeting, SEG, pp. 1361–1365. doi:10.1190/segam2015-5881732.1

127. ★ Perrone, F., Sava, P. C., 2015b. Is image-warping a robust tool for image domain tomography? In: Expanded abstracts. EAGE Research Workshop: Wave Equation Based Migration Velocity Analysis, Madrid, Spain. doi:10.3997/2214-4609.201413496

126. ★ Diaz, E., Sava, P. C., 2015c. Optimizing the input model for waveform inversion using image-domain wavefield tomography with illumination compensation. In: Expanded abstracts. EAGE Research Workshop: Wave Equation Based Migration Velocity Analysis, Madrid, Spain. doi:10.3997/2214-4609.201413494

125. Sava, P. C., Grimm, R. E., Asphaug, E., 2015a. 3D radar imaging of comet interiors by wavefield migration and tomography. In: Abstracts. 46^{th} Lunar and Planetary Science Conference, p. 1305

124. Sava, P. C., 2014. Wavefield imaging/inversion/tomography/mva: what is the difference? In: Post-convention workshop "New Advances in Migration". 84^{th} Annual International Meeting, SEG 2014

123. Asphaug, E., Belton, M., Bockelée-Morvan, D., Chesley, S., Delbo, M., Farnham, T., Gim, Y., Grimm, R., Herique, A., Kofman, W., Oberst, J., Orosei, R., Piqueux, S., Plaut, J., Robinson, M., Sava, P. C., Heggy, E., Kurth, W., Scheeres, D., Denevi, B., Turtle, E., Weissman, P., 2014. The Comet Radar Explorer Mission. In: Abstracts. 46^{th} Meeting of the Division for Planetary Sciences, American Astronomical Society, p. 209.07

122. Revil, A., Barnier, G., Sava, P. C., Jardani, A., Kulessa, B., 2014b. Seismoelectric coupling in partially water-saturated porous media: From the theory to the detection of saturation fronts. In: Abstracts. Fall meeting of the American Geophysical Union

121. ★ Diaz, E., Duan, Y., Sava, P. C., Pratt, G., 2014. Image-domain and data-domain waveform tomography: a case study. In: Expanded abstracts. 84^{th} Annual International Meeting, SEG, pp. 1243–1248. doi:10.1190/segam2014-1487.1

120. ★ Duan, Y., Sava, P. C., 2014a. Converted-waves imaging condition for elastic reverse-time migration. In: Expanded abstracts. 84^{th} Annual International Meeting, SEG, pp. 1904–1908. doi:10.1190/segam2014-1289.1

119. ★ Duan, Y., Sava, P. C., 2014b. Elastic reverse-time migration with OBS multiples. In: Expanded abstracts. 84^{th} Annual International Meeting, SEG, pp. 4071–4076. doi:10.1190/segam2014-1395.1

118. Li, L., Caers, J., Sava, P. C., 2014. Uncertainty maps for seismic images through geostatistical model randomization. In: Expanded abstracts. 84^{th} Annual International Meeting, SEG, pp. 1496–1500. doi:10.1190/segam2014-1402.1

117. ★ Perrone, F., Sava, P. C., 2014. Comparison of shot-based image-domain tomography approaches - DSO, penalized image local-correlations, and image-warping. In: Expanded abstracts. 76^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20141156

116. Sava, P. C., Revil, A., 2014. Seismoelectric imaging using virtual electrode scanning. In: Expanded abstracts. 6^{th} Saint Petersburg International Conference & Exhibition, EAGE. doi:10.3997/2214-4609.20140212

2013

115. ★ Diaz, E., Sava, P. C., 2013. Wavefield tomography using RTM backscattering. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 4021–4026. doi:10.1190/segam2013-1124.1

114. ★ Yang, T., Sava, P. C., 2013a. 3D angle gathers from wave-equation extended images. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 3963–3968. doi:10.1190/segam2013-1344.1

113. ★ Yang, T., Sava, P. C., 2013b. 3D image-domain wavefield tomography using time-lag extended images. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 4816–4821. doi:10.1190/segam2013-0279.1

112. ★ Patrikeeva, N., Sava, P. C., 2013. Comparison of angle decomposition methods for wave-equation migration. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 3773–3778. doi:10.1190/segam2013-0780.1

111. ★ Perrone, F., Sava, P. C., 2013a. Shot-domain 4d time-lapse velocity analysis using apparent image displacements. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 4932–4936. doi:10.1190/segam2013-0415.1

110. Douma, J., Snieder, R., Fish, A., Sava, P. C., 2013. Locating a microseismic event using deconvolution. In: Expanded abstracts. 83^{rd} Annual International Meeting, SEG, pp. 2206–2211. doi:10.1190/segam2013-0446.1

109. ★ Rocha, D. C., Sava, P. C., 2013. Blended-record imaging: investigations on optimization and possible applications. In: Expanded abstracts. 13^{th} International Congress of the Brazilian Geophysical Society (SBGf), pp. 1279–1283. doi:10.1190/sbgf2013-263

108. Sava, P. C., Diaz, E., Yang, T., 2013b. Wavefield tomography without low frequency data. In: Expanded abstracts. EAGE Research Workshop: Wave-equation Migration Velocity Analysis, London, UK. doi:10.3997/2214-4609.20131200

107. ★ Perrone, F., Sava, P. C., 2013c. Wavefield tomography based on local image correlations. In: Expanded abstracts. EAGE Research Workshop: Wave-equation Migration Velocity Analysis, London, UK. doi:10.3997/2214-4609.20131204

106. ★ Perrone, F., Sava, P. C., 2013b. Time-lapse velocity analysis using apparent image displacements. In: Expanded abstracts. 75^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20130989

105. Sava, P. C., Diaz, E., Yang, T., 2013a. Do we really need low frequencies in waveform inversion? In: Expanded abstracts. SEG Research Workshop – Full Waveform Inversion: From Near Surface to Deep, Muscat, Oman

104. Shragge, J., Yang, T., Sava, P. C., 2013b. Time-lapse image-domain tomography using adjoint-state theory. In: Expanded abstracts. ASEG 23^{rd} International Geophysical Conference and Exhibition, Melbourne, Australia, pp. 1–4. doi:10.1071/ASEG2013ab032

103. Sava, P. C., Grimm, R. E., Ittharat, D., Stillman, D. E., 2013c. Radar imaging the interiors of small bodies: Initial migration studies. In: Abstracts. 44^{th} Lunar and Planetary Science Conference, p. 1350

2012

102. ★ Perrone, F., Sava, P. C., 2012b. Waveform tomography based on local image correlations. In: Expanded abstracts. 82^{nd} Annual International Meeting, SEG, pp. 1–6. doi:10.1190/segam2012-1463.1

101. ★ Diaz, E., Sava, P. C., 2012. Understanding the reverse time migration backscattering: noise or signal? In: Expanded abstracts. 82^{nd} Annual International Meeting, SEG, pp. 1–6. doi:10.1190/segam2012-1203.1

100. ★ Yang, T., Shragge, J., Sava, P. C., 2012b. Illumination compensation for subsalt image-domain wavefield tomography. In: Expanded abstracts. 82^{nd} Annual International Meeting, SEG, pp. 1–6. doi:10.1190/segam2012-0563.1

99. Shragge, J., Yang, T., Sava, P. C., 2012. Time-lapse image-domain velocity analysis using adjoint-state methods. In: Expanded abstracts. 82^{nd} Annual International Meeting, SEG, pp. 1–5. doi:10.1190/segam2012-1245.1

98. Sava, P. C., Alkhalifah, T., 2012. Anisotropy signature in extended images from reverse-time migration. In: Expanded abstracts. 82^{nd} Annual International Meeting, SEG, pp. 1–6. doi:10.1190/segam2012-0124.1

97. ★ Yang, T., Shragge, J., Sava, P. C., 2012c. Subsalt wavefield tomography with illumination compensation. In: Expanded abstracts. SEG/EAGE Summer Research Workshop

96. ★ Perrone, F., Sava, P. C., 2012c. Waveform tomography based on local image correlations. In: Expanded abstracts. SEG/EAGE Summer Research Workshop

95. ★ Yang, T., Shragge, J., Sava, P. C., 2012a. Illumination compensation for image-domain wavefield tomography. In: Expanded abstracts. 74^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20148722

94. ★ Perrone, F., Sava, P. C., Andreoletti, C., Bienati, N., 2012. Wavefield tomography based on local image correlation. In: Expanded abstracts. 74^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20148591

93. Sava, P. C., Yang, T., 2012. Image-domain wavefield tomography for complex geologic structures. In: Expanded abstracts. First Latin American Geophysics Workshop – Geophysical Imaging in Complex Areas and Reservoir Characterization, Cartagena, Colombia. doi:10.3997/2214-4609.20143868

2011

92. Frigerio, J., Sava, P. C., 2011. Angle-azimuth decomposition of converted waves using extended images. In: Expanded abstracts. 12^{th} International Congress of the Brazilian Geophysical Society (SBGf), pp. 1090–1093. doi:10.1190/sbgf2011-226

91. Sava, P. C., Alkhalifah, T., 2011. Wide-azimuth angle-domain imaging for anisotropic reverse-time migration. In: Expanded abstracts. 81^{st} Annual International Meeting, SEG, pp. 3114–3119. doi:10.1190/1.3627843

90. ★ Yang, T., Sava, P. C., 2011a. Image-domain waveform tomography with two-way wave-equation. In: Expanded abstracts. 81^{st} Annual International Meeting, SEG, pp. 2591–2596. doi:10.1190/1.3627730

89. Luo, S., Sava, P. C., 2011. A deconvolution-based objective function for wave-equation inversion. In: Expanded abstracts. 81^{st} Annual International Meeting, SEG, pp. 2788–2792. doi:10.1190/1.3627773

88. ★ Godwin, J., Sava, P. C., 2011. A comparison of shot-encoding schemes for wave-equation migration. In: Expanded abstracts. 81^{st} Annual International Meeting, SEG, pp. 32–36. doi:10.1190/1.3627881

87. ★ Cullison, T., Sava, P. C., 2011. An image-guided method for automatically picking common-image-point gathers. In: Expanded abstracts. 81^{st} Annual International Meeting, SEG, pp. 3908–3912. doi:10.1190/1.3628021

86. Sava, P. C., Vlad, I., 2011a. Efficient wide-azimuth angle decomposition for reverse-time migration. In: Expanded abstracts. 73^{rd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149203

85. ★ Yang, T., Sava, P. C., 2011c. Waveform inversion in the image domain. In: Expanded abstracts. 73^{rd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149183

84. ★ Godwin, J., Fish, A., Sava, P. C., 2011. Automatic microseism location by full-waveform triangulation. In: Expanded abstracts. 73^{rd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149022

83. Sava, P. C., 2011b. Wavefield tomography with extended images. In: Abstracts. Meeting of the International Council for Industrial and Applied Mathematics (ICIAM), British Columbia, Canada

2010

82. ★ Godwin, J., Sava, P. C., 2010a. Blended source imaging by amplitude encoding. In: Expanded abstracts. 80^{th} Annual International Meeting, SEG, pp. 3125–3129. doi:10.1190/1.3513495

81. ★ Yang, T., Sava, P. C., 2010c. Wave-equation migration velocity analysis with extended common-image-point gathers. In: Expanded abstracts. 80^{th} Annual International Meeting, SEG, pp. 4369–4374. doi:10.1190/1.3513787

80. ★ Yan, J., Sava, P. C., 2010a. Analysis of converted-wave extended images for migration velocity analysis. In: Expanded abstracts. 80^{th} Annual International Meeting, SEG, pp. 1666–1671. doi:10.1190/1.3513161

79. Alkhalifah, T., Sava, P. C., 2010a. Migration velocity analysis using a transversely isotropic medium with tilt normal to the reflector dip. In: Pre-convention workshop "Migration Velocity Analysis in Anisotropic Media – What Is Possible and What Is Impossible". 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149901

78. ★ Godwin, J., Sava, P. C., 2010b. Extended common-image-point gathers for anisotropic imaging with blended sources. In: Pre-convention workshop "Migration Velocity Analysis in Anisotropic Media – What Is Possible and What Is Impossible". 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149903

77. Sava, P. C., Alkhalifah, T., 2010. Extended common-image-point gathers for anisotropic wave-equation migration. In: Pre-convention workshop "Migration Velocity Analysis in Anisotropic Media – What Is Possible and What Is Impossible". 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20149902

76. ★ Perrone, F., Sava, P. C., 2010. Wave-equation migration with dithered plane waves. In: Expanded abstracts. 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201401167

75. ★ Yang, T., Sava, P. C., 2010a. Differential semblance wavefield tomography using extended images. In: Expanded abstracts. 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201400682

74. ★ Yan, J., Sava, P. C., 2010b. Efficient elastic wave-mode separation in TTI media. In: Expanded abstracts. 72^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201400705

73. Sava, P. C., 2009. Coordinate-independent extended images for wave-equation migration velocity analysis (Keynote Address). In: EAGE Subsalt imaging workshop – Focus on Azimuth, Cairo, Egypt. doi:10.3997/2214-4609.20147233 2009

72. ★ Yang, T., Sava, P. C., 2009b. Wave-equation migration velocity analysis using focusing of extended images. In: EAGE Subsalt imaging workshop – Focus on Azimuth, Cairo, Egypt

71. Sava, P. C., Vasconcelos, I., 2009a. Efficient computation of extended images by wavefield-based migration. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 2824–2828. doi:10.1190/1.3255436

70. ★ Yan, J., Sava, P. C., 2009b. Elastic wave mode separation for TTI media. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 1197–1201. doi:10.1190/1.3255066

69. ★ Yang, T., Sava, P. C., 2009a. Wave-equation migration velocity analysis using extended images. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 3715–3719. doi:10.1190/1.3255640

68. ★ Xuan, R., Sava, P. C., 2009. Probabilistic micro-earthquake location for reservoir monitoring. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 1637–1641. doi:10.1190/1.3255164

67. ★ Perrone, F., Sava, P. C., 2009. Comparison of shot encoding functions for reverse-time migration. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 2980–2984. doi:10.1190/1.3255472

66. ★ Ma, Y., Sava, P. C., 2009b. Effects of multi-scale velocity heterogeneities on wave-equation migration. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 2732–2736. doi:10.1190/1.3255416

65. ★ Melo, G., Sava, P. C., 2009. Resolution analysis of wide-azimuth angle decomposition for wave-equation migration. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 2904–2908. doi:10.1190/1.3255454

64. Vasconcelos, I., Sava, P. C., Douma, H., 2009b. Wave-equation extended images via image-domain interferometry. In: Expanded abstracts. 79^{th} Annual International Meeting, SEG, pp. 2839–2843. doi:10.1190/1.3255439

63. ★ Yan, J., Sava, P. C., 2009a. 3-D elastic wave mode separation for TTI media. In: Post-convention workshop "Are recent advances in Multicomponent technology meeting industry challenges and adding value". 79^{th} Annual International Meeting, SEG, pp. 4294–4298. doi:10.1190/1.3255781

62. ★ Yang, T., Sava, P. C., 2009c. Wavefield-based migration velocity analysis with space/time extended images. In: Post-convention workshop "Full wave-equation methods for complex imaging challenges". 79^{th} Annual International Meeting, SEG

61. Sava, P. C., Vasconcelos, I., 2009b. Extended common-image-point gathers for wave-equation migration. In: Expanded abstracts. 71^{st} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201400361

60. ★ Yan, J., Sava, P. C., 2009d. P- and SV-mode separation in complex geology with VTI anisotropy. In: Expanded abstracts. 71^{st} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201400142

59. Vasconcelos, I., Sava, P. C., Douma, H., 2009a. Image-domain interferometry and wave-equation extended images. In: Expanded abstracts. 71^{st} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201400362

58. Sava, P. C., 2008b. Micro-earthquake monitoring with sparsely-sampled data. In: Expanded abstracts. 78^{th} Annual International Meeting, SEG, pp. 1352–1356. doi:10.1190/1.3059164 2008

57. ★ Yan, J., Sava, P. C., 2008a. Elastic wavefield separation for VTI media. In: Expanded abstracts. 78^{th} Annual International Meeting, SEG, pp. 2191–2195. doi:10.1190/1.3059321

56. ★ Yang, T., Sava, P. C., 2008. Wave-equation extended images for semblance and depth focusing velocity analysis. In: Expanded abstracts. 78^{th} Annual International Meeting, SEG, pp. 2351–2355. doi:10.1190/1.3059352

55. ★ Yan, J., Sava, P. C., 2008b. Elastic wavefield separation for VTI media. In: Expanded abstracts. 13^{th} International Workshop on Seismic Anisotropy, Winter Park, Colorado

54. Sava, P. C., 2008a. Interferometric seismic imaging of sparsely-sampled data. In: Expanded abstracts. 70^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20147728

53. Silva, E., Sava, P. C., 2008. Wave equation migration using isochron rays. In: Expanded abstracts. 70^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.20148019

2007

52. Sava, P. C., Poliannikov, O., 2007c. Interferometric imaging condition for wave-equation migration. In: Expanded abstracts. 77^{th} Annual International Meeting, SEG, pp. 2330–2334. doi:10.1190/1.2792950

51. Sava, P. C., 2007b. Stereographic imaging condition for wave-equation migration. In: Expanded abstracts. 77^{th} Annual International Meeting, SEG, pp. 2245–2249. doi:10.1190/1.2792932

50. ★ Yan, J., Sava, P. C., 2007. Elastic wavefield imaging with scalar and vector potentials. In: Expanded abstracts. 77^{th} Annual International Meeting, SEG, pp. 2150–2154. doi:10.1190/1.2792913

49. Sava, P. C., Poliannikov, O., 2007b. Interferometric imaging condition. In: Expanded abstracts. 69^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201401520

48. Sava, P. C., Poliannikov, O., 2007a. Extended imaging conditions for seismic data. In: Expanded abstracts. SIAM Conference on Mathematical and Computational Issues in the Geosciences

47. Poliannikov, O., Sava, P. C., 2007. Coherent imaging in a random medium. In: Expanded abstracts. SIAM Conference on Mathematical and Computational Issues in the Geosciences

46. Vasconcelos, I., Taylor, S., Snieder, R., Chavarria, A., Sava, P. C., Malin, P., 2007. Broadside interferometric and reverse-time imaging of the San Andreas fault at depth. In: Expanded abstracts. 77^{th} Annual International Meeting, SEG, pp. 2175–2179. doi:10.1190/1.2792918

2006

45. Sava, P. C., Fomel, S., 2006c. Time-shift imaging condition for converted waves. In: Expanded abstracts. 76^{th} Annual International Meeting, SEG, pp. 2460–2464. doi:10.1190/1.2370030

44. Albertin, U., Sava, P. C., Etgen, J., Maharramov, M., 2006a. Adjoint wave-equation velocity analysis. In: Expanded abstracts. 76^{th} Annual International Meeting, SEG, pp. 3345–3349. doi:10.1190/1.2370226

43. Sava, P. C., Fomel, S., 2006a. Generalized imaging conditions for wave-equation migration. In: Expanded abstracts. 68^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201402162

42. Albertin, U., Sava, P. C., Etgen, J., Maharramov, M., 2006b. Image differencing and focusing in wave-equation velocity analysis. In: Expanded abstracts. 68^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609.201402425

41. Sava, P. C., Fomel, S., 2005c. Time-shift imaging condition. In: Expanded abstracts. 75^{th} Annual International Meeting, SEG, pp. 1850–1853. doi:10.1190/1.2148063 2005

40. Sava, P. C., Fomel, S., 2005a. Coordinate-independent angle-gathers for wave equation migration. In: Expanded abstracts. 75^{th} Annual International Meeting, SEG, pp. 2052–2055. doi:10.1190/1.2148114

39. Sava, P. C., Fomel, S., 2005e. Wave-equation common-angle gathers for converted waves. In: Expanded abstracts. 75^{th} Annual International Meeting, SEG, pp. 947–950. doi:10.1190/1.2148317

38. Shragge, J., Sava, P. C., 2005. Wave-equation migration from topography. In: Expanded abstracts. 75^{th} Annual International Meeting, SEG, pp. 1842–1845. doi:10.1190/1.2148061

37. Fomel, S., Sava, P. C., 2005. Wave-equation angle-domain imaging for multicomponent seismic data. In: Expanded abstracts. SEG/EAGE Summer Research Workshop. doi:10.3997/2214-4609-pdb.17.a08

36. Sava, P. C., Fomel, S., 2005d. Time-shift wave-equation imaging. In: Expanded abstracts. 4^{th} Congress of the Balkan Geophysical Society. doi:10.3997/2214-4609-pdb.26.o1-02

35. Shragge, J., Sava, P. C., Shan, G., Biondi, B., Fomel, S., 2005. Riemannian wavefield extrapolation of seismic data. In: Expanded abstracts. 4^{th} Congress of the Balkan Geophysical Society. doi:10.3997/2214-4609-pdb.26.o4-01

34. Sava, P. C., Fomel, S., 2004b. Wavefield extrapolation in Riemannian coordinates. In: Expanded abstracts. 74^{th} Annual International Meeting, SEG, pp. 1049–1052. doi:10.1190/1.1845095 2004

33. Sava, P. C., Biondi, B., Etgen, J., 2004a. Diffraction-focusing migration velocity analysis. In: Expanded abstracts. 74^{th} Annual International Meeting, SEG, pp. 2395–2398. doi:10.1190/1.1845226

32. Shragge, J., Sava, P. C., 2004a. Adaptive phase-ray wavefield extrapolation. In: Expanded abstracts. 74^{th} Annual International Meeting, SEG, pp. 2044–2047. doi:10.1190/1.1851193

31. Sava, P. C., Fomel, S., 2004a. Seismic modeling with Riemannian wavefield extrapolation. In: Expanded abstracts. 66^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609-pdb.3.p268

30. Sava, P. C., Biondi, B., 2004a. Wave-equation migration velocity analysis. In: Expanded abstracts. SEG/EAGE Summer Research Workshop. doi:10.3997/2214-4609.201405675

29. Sava, P. C., Shragge, J., Fomel, S., 2004b. One-way wavefield extrapolation in Riemannian coordinates. In: Abstracts. Fall meeting of the American Geophysical Union

28. Shragge, J., Sava, P. C., 2004b. Incorporating topography into crustal-scale wave-equation imaging through conformal mapping. In: Abstracts. Fall meeting of the American Geophysical Union

27. Irving, J., Sava, P. C., Knight, R., Biondi, B., 2004. Ground-penetrating radar diffraction velocity analysis. In: Abstracts. Spring meeting of the American Geophysical Union

26. Sava, P. C., Biondi, B., 2003c. Wave-equation migration velocity analysis by inversion of differential image perturbations. In: Expanded abstracts. 73^{rd} Annual International Meeting, SEG, pp. 2124–2127. doi:10.1190/1.1817756 2003

25. Sava, P. C., Guitton, A., 2003b. Multiple attenuation in the image space. In: Expanded abstracts. 73^{rd} Annual International Meeting, SEG, pp. 1933–1936. doi:10.1190/1.1817700

24. Sava, P. C., Biondi, B., 2003a. Analytical image perturbations for wave-equation migration velocity analysis. In: Expanded abstracts. 65^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609-pdb.6.f36

23. Sava, P. C., Biondi, B., 2003b. Migration velocity analysis by recursive wavefield extrapolation. In: Expanded abstracts. SEG/EAGE Summer Research Workshop, p. T20. doi:10.3997/2214-4609.201405896

22. Sava, P. C., Guitton, A., 2003a. Multiple attenuation after migration. In: Expanded abstracts. SEG/EAGE Summer Research Workshop, p. T25. doi:10.3997/2214-4609.201405901

21. Sava, P. C., Biondi, B., Fomel, S., 2003. Wave-equation migration velocity analysis. In: Expanded abstracts. SIAM Conference on Mathematical and Computational Issues in the Geosciences

20. Biondi, B., Clapp, R., Prucha, M., Sava, P. C., 2002. 3-D prestack wave-equation imaging: a rapidly evolving technology. In: Expanded abstracts. 64^{th} Annual International Meeting, EAGE. doi:10.3997/2214-4609-pdb.5.e027 2002

19. Sava, P. C., Fomel, S., 2002. Wave-equation migration velocity analysis beyond the Born approximation. In: Expanded abstracts. 72^{nd} Annual International Meeting, SEG, pp. 2285–2288. doi:10.1190/1.1817169

18. Rosales, D., Biondi, B., Sava, P. C., 2002. Stolt prestack residual migration for converted waves. In: Expanded abstracts. 72^{nd} Annual International Meeting, SEG, pp. 986–989. doi:10.1190/1.1817433

17. Sava, P. C., Biondi, B., Fomel, S., 2001a. Amplitude-preserved common image gathers by wave-equation migration. In: Expanded abstracts. 71^{st} Annual International Meeting, SEG, pp. 296–299. doi:10.1190/1.1816598 2001

16. Sava, P. C., Rickett, J., Prucha, M., Biondi, B., 2001b. Amplitude-preserving wave-equation imaging. In: Expanded abstracts. Research Workshop, SEG

15. Rickett, J., Sava, P. C., 2001. Offset and angle domain common-image gathers for shot-profile migration. In: Expanded abstracts. 71^{st} Annual International Meeting, SEG, pp. 1115–1118. doi:10.1190/1.1816280

14. Vaillant, L., Calandra, H., Sava, P. C., Biondi, B., 2000a. 3-D wave-equation imaging of a North Sea dataset: Common-azimuth migration + residual migration. In: Expanded abstracts. 70^{th} Annual International Meeting, SEG, pp. 874–877. doi:10.1190/1.1816212 2000

13. Sava, P. C., 2000. Prestack Stolt residual migration for migration velocity analysis. In: Expanded abstracts. 70^{th} Annual International Meeting, SEG, pp. 992–995. doi:10.1190/1.1860631

12. Biondi, B., Vaillant, L., Sava, P. C., 2000a. Wave-equation imaging of 3-D reflection seismic data. In: Expanded abstracts. 62^{nd} Annual International Meeting, EAGE

11. Vaillant, L., Sava, P. C., Biondi, B., Calandra, H., 2000b. 3-D prestack wave-equation migration of a common-azimuth North Sea dataset. In: Expanded abstracts. 62^{nd} Annual International Meeting, EAGE. doi:10.3997/2214-4609-pdb.28.143

10. Sava, P. C., Biondi, B., 2000. Wave-equation migration velocity analysis. In: Abstracts. International Geophysical Conference and Exposition of the Romanian Society of Geophysics

9. Biondi, B., Vaillant, L., Sava, P. C., 2000b. Wave-equation imaging of 3-D reflection seismic data. In: Abstracts. Fall meeting of the American Geophysical Union

8. Biondi, B., Sava, P. C., 1999. Wave-equation migration velocity analysis. In: Expanded abstracts. 69^{th} Annual International Meeting, SEG, pp. 1723–1726. doi:10.1190/1.1820867 1999

7. Sava, P. C., Fomel, S., 1999. 3-D traveltime computation by Huygens wavefront tracing. In: Expanded abstracts. SIAM Conference on Mathematical and Computational Issues in the Geosciences

6. Biondi, B., Prucha, M., Sava, P. C., 1999. 3-D wave-equation prestack imaging under salt. In: Expanded abstracts. 6^{th} International Congress of the Brazilian Geophysical Society (SBGf)

5. Sava, P. C., Fomel, S., 1998. Huygens wavefront tracing: A robust alternative to ray tracing. In: Expanded abstracts. 68^{th} Annual International Meeting, SEG, pp. 1961–1964. doi:10.1190/1.1820324 1998

4. Sava, C. S., Morosanu, I., Dimitriu, R., Hannich, D., Sava, P. C., 1996. Intramoesian structural features emphasized by gravity and magnetics offshore Constanta. In: Extended abstracts. First Congress of the Balkan Geophysical Society 1996

3. Sava, C. S., Sava, P. C., 1995. Quo vadit bouguer gravity anomaly? In: Abstracts. International Conference of the Romanian Society of Geophysics, p. P12 1995

2. Sava, P. C., 1995. Numerical studies on solving tomographic systems with iterative algorithms. In: Abstracts. Interdisciplinary Inversion Conference on Methodology, Computation and Integrated Applications

1. Sava, C. S., Dimitriu, R., Sava, P. C., 1994. Contributions of the marine gravity and magnetic survey to the geological knowledge on the Black Sea romanian shelf (I). In: Expanded abstracts. 56^{th} Annual International Meeting, EAEG. doi:10.3997/2214-4609.201409956 1994

BOOK

- Revil, A., Jardani, A., Sava, P. C., Haas, A., 2015. The Seismoelectric Method: Theory and Application. John Wiley & Sons. doi:10.1002/9781118660270

TECHNICAL REPORTS

- **Center for Wave Phenomena**, Colorado School of Mines
  85 annual reports published online at www.cwp.mines.edu *from 2006*
- **Stanford Exploration Project**, Stanford University
  41 bi-annual reports published online at sepwww.stanford.edu *1997–2005*

INTELLECTUAL PROPERTY

- **Virtual electrode current injection using seismic focusing and seismoelectric conversion** *10/16/2012*
  P. C. Sava, A. Revil,
  US 20140104980 A1
- **Wave-equation migration velocity analysis using image warping** *7/12/2011*
  P. C. Sava, F. Perrone, C. Andreoletti, N. Bienati,
  US 14/131,962, WO 2013009944 A1 & EP 2732312 A1

PROFESSIONAL SERVICE

- **Chair**, EAGE Student Fund Board *2014–2019*
  European Association of Geoscientists and Engineers
- **Education Officer**, EAGE Board *2012–2016*
  European Association of Geoscientists and Engineers
- **Member** of the Research Committee *2009–2012*
  European Association of Geoscientists and Engineers
- **Member** of the Online Education Task Force *2007*
  Society of Exploration Geophysicists

UNIVERSITY SERVICE

- **Member**: CSM Assistant Dean, Undergraduate Studies, search committee *2026*
- **Member**: CSM Vice President for Research search committee *2026*
- **Chair**: CSM Civil & Environmental Engineering Head search committee *2023–2024*
- **Chair**: CSM Applied Math & Statistics Head search committee *2021–2022*
- **Member**: CSM Vice Provost search committee *2021*
- **Member**: CSM Space Resources Program Steering Committee *from 8/2017*
- **Member**: CSM Research Advisory Board *9/2018–8/2021*
- **Advisor**: CSM Society of Women in Geophysics *2014–2018*
- **Member**: CSM Computer Science search committee *2017–2018*
- **Member**: CSM VP Research/Technology Transfer search committee *2017*
- **Member**: CSM Graduate Dean search committee *2017*
- **Chair**: CSM Reimagine Geophysics committee *2016–2017*
- **Member**: CSM Mining Banfield Chair search committee *8/2016–3/2017*
- **Member**: CSM Geophysics Graduate Advisory committee *8/2009–1/2017*
- **Member**: CSM Research Task Force *5/2015–8/2016*
- **Member**: CSM Geophysics Department Head search committee *1/2016–12/2016*
- **Chair**: CSM Geophysics faculty search committees *'07,'08,'11,'15,'16*
- **Member**: CSM Geophysics faculty search committee *'17*
- **Chair**: CSM Geophysics Graduate Advisory committee *8/2009–6/2013*
- **Member**: CSM Graduate Council *8/2009–6/2013*
- **Member**: CSM committee on High Performance Computing *2008–2010*
- **Member**: CSM Geophysics ABET accreditation committee *2007–2013*
- **Advisor**: CSM Society of Student Geophysicists *2007–2013*
- **Member**: CSM Honors and Awards committee *2007–2010*

REVIEW PANELS

- **Referee**, promotion *2026*
  Kansas Geological Survey
- **Referee**, research proposals *2025*
  Swiss National Science Foundation
- **Referee**, research proposals *2021*
  King Fahd University of Petroleum & Minerals
- **Referee**, research proposals *2017, 2018, 2019, 2020, 2021, 2022, 2023*
  National Aeronautics and Space Administration
- **Referee**, research proposals *2017, 2019*
  German Research Foundation (Deutsche Forschungsgemeinschaft)
- **Referee**, research proposals *2017, 2019*
  Oak Ridge Associated Universities
- **Referee**, research proposals *2017, 2018*
  Netherlands Organisation for Scientific Research
- **Referee**, tenure & promotion *2018*
  Ludwig-Maximilians Universität München
- **Referee**, tenure & promotion *2018*
  United Arab Emirates University

- **Referee**, tenure & promotion *2017*
  King Fahd University of Petroleum & Minerals
- **Referee**, tenure & promotion *2014, 2016*
  University of Texas (Dallas)
- **Referee**, tenure & promotion *2013, 2014*
  University of Western Australia
- **Referee**, research proposals *2013*
  Natural Sciences and Engineering Research Council of Canada
- **Referee**, tenure & promotion *2006, 2010*
  Stanford University

CONFERENCE SERVICE

- **Co-organizer** of "Understanding the uncertainty in seismic images" *2016*
  SEG workshop at the Annual Convention
- **Member** of the Technical Program Committee *2016*
  SEG/EAGE Summer Research Workshop
- **Co-organizer** of "Adaptive Seismic Imaging" *2015*
  SEG workshop at the Annual Convention
- **Member** of the Technical Program Committee *2014*
  EAGE Conference and Exhibition, Saint Petersburg, Russia
- **Co-organizer** of "Gathers for Modern Migration Algorithms" *2013*
  SEG workshop at the Annual Convention
- **Member** of the Technical Program Committee *2012*
  SEG/EAGE Summer Research Workshop, Charleston, SC
- **Member** of the Technical Program Committee *2012*
  EAGE/ACGGP Latin American Geophysics Workshop, Cartagena, Colombia
- **Member** of the Technical Program Committee *2010*
  SEG Annual Convention, Denver, CO
- **Member** of the Technical Program Committee *2008*
  SEG Annual Convention, Las Vegas, NV
- **Co-organizer** of "Wavefield imaging and interferometry minisymposium" *2007*
  SIAM Conference on Mathematical and Computational Issues
  in the Geosciences, Santa Fe, NM

EDITORIAL SERVICE

- **Guest Editor**, *The Leading Edge (Imaging Migration)* *2014*
- **Guest Editor**, *The Leading Edge (High Performance Computing)* *2010*
- **Editorial Board**, *Journal of Applied Geophysics* *2006–2012*
- **Editorial Board**, *Journal of Seismic Exploration* *2005–2012*
- **Associate Editor**, *Geophysics (Letters)* *2005–2009*
- **Reviewer**
  - *Radio Science* *from 2020*
  - *Astronomy and Astrophysics* *from 2020*
  - *Journal of Nondestructive Evaluation* *from 2019*
  - *Advances in Space Research* *from 2017*
  - *Journal of Petroleum Exploration and Production Technology* *from 2010*
  - *Geophysical Prospecting* *from 2007*

- *Inverse Problems* — *from 2006*
- *Geophysical Journal International* — *from 2006*
- *Wave Motion* — *from 1999*
- *Geophysics* — *from 1998*
- *Bulletin of the Seismological Society of America* — *from 1998*

OPEN-SOURCE SOFTWARE

- **Co-leader** — *from 2006*
  Madagascar
  www.ahay.org

PROFESSIONAL MEMBERSHIP

- American Astronomical Society, Division of Planetary Sciences (AAS/DPS)
- American Geophysical Union (AGU)
- European Association of Geoscientists and Engineers (EAGE)
- Society of Exploration Geophysicists (SEG)

November 17, 2026