

Julia Correa
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EDUCATION

PhD, Exploration Geophysics, Curtin University, Perth/AU, September 2015-June 2019
Dissertation Title: “Distributed Acoustic Sensing for Seismic Imaging and Reservoir Monitoring Applied to CO₂ geosequestration”

BSc, Geophysics, Fluminense Federal University, Niteroi/BR, March 2008-December 2012
Dissertation Title: “The Use of Seismic Attributes in the Discrimination of Reservoirs in Barracuda Field”

EXPERIENCE

- **Research Scientist**, Energy Geoscience Division, Lawrence Berkeley National Laboratory, Berkeley CA, July 2020
 - Principal Investigator for CCSMR Task 2
 - Continuous seismic monitoring for CCUS projects and unconventional reservoirs
- **Postdoctoral Scholar**, Lawrence Berkeley National Laboratory, Berkeley CA, June 2019-June 2020
 - Responsible for the seismic monitoring in Otway Project (CCSMR), Archer Daniels Midland (ADM) IMS CCS, Eagle Ford Shale Laboratory (EFSL).
 - 2D/3D surface and VSP seismic processing and interpretation.
 - Field data acquisition of fiber-optic DAS and conventional sensors.
 - Specialized in seismic processing and analysis of data acquired with DAS and permanent surface orbital vibrators (SOV).
- **Graduate Student Assistant**, Lawrence Berkeley National Laboratory, Berkeley CA, January 2018-June 2019
 - Data processing of 2D lines acquired with Distributed Acoustic Sensing and permanent orbital vibrators in the ADM CCS project.
 - Elastic 2D finite difference forward seismic modeling using V_p , V_s , and density 2D models.
- **Research Assistant**, Curtin University, Perth/Australia, October 2016-February 2018
 - Rock physics modelling for CCS (WA South West Hub).
 - Field crew member in surface seismic and VSP deployments (observer/senior observer).
- **Field Geophysicist**, WesternGeco/Schlumberger, April 2013-December 2014
 - Onboard Seismic Processor at WesternGeco (vessels WG Magellan and Amazon Warrior).
 - Seismic processing experience: navigation and seismic merge, SEG-Y generation, designature, random and coherent Noise Attenuation, Multiple Attenuation, deghosting, Pre-stack Kirchhoff Migration.
 - 3D and 4D projects offshore West Africa and the Mediterranean.
 - Completed several courses as part of the graduate program (Advanced Seismic Processing, Marine Seismic Acquisition, Fire Fighting, Survival Techniques).
- **Geophysics Intern**, SIS/Schlumberger, Rio de Janeiro/Brazil, August 2011-November 2012
 - Internship in geophysics with SIS segment.

- Assisting with training courses offered to clients. Course topics: Seismic Interpretation in Petrel, Well Tie, Seismic Attributes and Velocity Model generation.
- Petrel software support.
- **Geophysics Intern**, Geosoft, Rio de Janeiro/Brazil, December 2010-August 2011
 - Processing of gravimetry and magnetometry data for mineral exploration.
 - Assisting with support for clients with software Oasis Montaj.
 - Developing and translating technical documentation and cataloging metadata.

SKILLS

Fiber-optic sensing acquisition and data handling: trained Silixa's iDAS v2 operator, deployment of fiber-optic cables, splicing, OTDR, processing of DAS data. **Seismic acquisition:** Deployment and observer experience with Sercel 428 system, Unite, SlimWave VSP, WesternGeco Q-Marine streamers, vibroseis operator (INOVA UniVib). **Advanced seismic processing:** SeisSpace/PROMAX, Omega, RadExPro, and Vista. **Seismic interpretation:** Petrel and OpenDTect. **Seismic forward modelling:** SOFI2D. **Programming:** MATLAB.

SELECTED PUBLICATIONS

Correa, J., Pevzner, R., Freifeld, B., Robertson, M., Daley, T., Wood, T., Tertyshnikov, K., Yavuz, S., Glubokovskikh, S., Bona, A. & Gurevich, B. 2020. *Continuous Downhole Seismic Monitoring Using Surface Orbital Vibrators and Distributed Acoustic Sensing at the Otway Project – Field Trial for Optimum Configuration*. Accepted chapter for AGU Books Series.

Pevzner, R., Urosevic, M., Tertyshnikov, K., AlNasser, H., Caspari, E., **Correa, J.**, Daley, T., Dance, T., Freifeld, B., Glubokovskikh, S., Greenwood, A., Kepic, A., Popik, D., Popik, S., Raab, M., Robertson, M., Shulakova, V., Singh, R., Watson, M., Yavuz, S., Ziramov, S. & Gurevich, B. 2020. *Active surface and borehole seismic monitoring of a small supercritical CO₂ injection into the subsurface: experience from the CO₂CRC Otway Project*. In: *Active Geophysical Monitoring*, Elsevier, 497-522.

Yavuz, S., Freifeld, B., Pevzner, R., Dzunic, A., Ziramov, S., Bona, A., **Correa, J.**, Tertyshnikov, K., Urosevic, M., Robertson, M. & Daley, T. 2019. *The initial appraisal of buried DAS system in CO₂CRC Otway Project: the comparison of buried standard fibre-optic and helically wound cables using 2D imaging*. *Exploration Geophysics* 50 (1).

Correa, J., Pevzner, R., Bona, A., Tertyshnikov, K., Freifeld, B., Robertson, M. & Daley, T. 2019. *3D VSP Acquired with DAS on Tubing Installation: A Case Study from the CO₂CRC Otway Project*. *Interpretation* 7 (1), SA11-SA19.

Egorov, A., **Correa, J.**, Bóna, A., Pevzner, R., Tertyshnikov, K., Glubokovskikh, S., Puzyrev, V., Gurevich, B. 2018. *Elastic Full Waveform Inversion of Vertical Seismic Profile data acquired with Distributed Acoustic Sensors*. *Geophysics* 83 (3), 1-32.

Correa, J., Egorov, A., Tertyshnikov, K., Bona, A., Pevzner, R., Dean, T., Freifeld, B., & Marshall, S. 2017. *Analysis of signal to noise and directivity characteristics of DAS VSP at near and far offsets — A CO₂CRC Otway Project data example*. *The Leading Edge*, 36(12), 994a1–994a7.

Pevzner, R., Urosevic, M., Popik, D., Shulakova, V., Tertyshnikov, K., Caspari, E., **Correa,**

J., Dance, T., Kepic, A., Glubokovskikh, S., Ziramov, S., Gurevich, B., Singh, R., Raab, M., Watson, M., Daley, T., Robertson, M. & Freifeld, B. 2017. *4D surface seismic tracks small supercritical CO₂ injection into the subsurface: CO₂CRC Otway Project*. IJGGC 63, 150-157.