

UNIVERSITY OF MIAMI
Curriculum Vitae

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Name: Ralf J. Weger
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Home Phone: +1 (305) 298-4493 (mobile)
Academic Rank: Research Assistant Professor
Department: Marine Geoscience
Citizenship: United States/Germany

HIGHER EDUCATION

Institutional:

University of Miami; Doctor of Marine Geology and Geophysics May 2006
University of Miami; Bachelor of Science in Systems Analysis..... May 2000

Certifications and Licenses:

sUAS Pilot, Airmen Certificate #4433079; U.S. Department of
Transportation, Federal Aviation Administration 09-2020
Certified General Contractor, CGC1527298; State of Florida, Department
of Business and Professional Regulation 01-2019
Professional Geologist, PG2997; State of Florida, Department of Business
and Professional Regulation 12-2018

EXPERIENCE

Academic:

University of Miami, Division of Marine Geology and Geophysics,
Research Assistant Professor..... 10/2022 – present
University of Miami, Marine Geosciences, Scientist 06/2019 – 10/2022
University of Miami, Marine Geology and Geophysics, Associate Research
Scientist 05/2010 – 06/2019
University of Miami, Marine Geology and Geophysics, Post Doctorial
Research Scientist..... 05/2006 – 10/2007

Non-Academic:

Carbonate Systems Inc, Miami FL: Owner, Independent Geological and
Geophysical contracting and consulting services..... 6/2009 – present

Repsol Exploration Advanced Services, A.G. Zurich – Switzerland; (in
Buenos Aires Argentina) Senior Geophysical Advisor 10/2007 – 05/2009

- Facies Analysis, Seismic Geometries and well data integration: Campos Basin, Brazil.
- Seismic attribute analysis with focus on integration of rock physics models and geologic interpretation to determine well location in various fields in Argentina.

- Prediction, Characterization and Modeling of Carbonate Reservoirs: A Multidisciplinary Study of the Quintuco Formation, Loma de La Lata, Neuquén.
- Building 3D Geological model through integration of seismic, log and core data for reservoir modeling.

Shell International Exploration and Production B.V. CDT, Rijswijk,
Netherlands: Geophysical Consultant (several different occasions) 2004 – 2007

- Implementation of newly developed `Permeability from Seismic` workflow to facilitate direct integration of log, core, geological interpretations, and seismic data for direct use in reservoir modeling and history match.
- Develop workflow to facilitate the use of `Permeability from Seismic` concepts in green fields as `sweet spotting` tool.
- "GameChanger" Project: Extracting Permeability from Seismic Data.
- Using calibrated extended Biot Theory parameters to extract permeability indicators directly from seismic data for use in reservoir modeling.
- First Implementation of my dissertation research as practical application that drastically improved history match.

Shell International Exploration and Production B.V. CDT, Rijswijk,
Netherlands: Intern 07/2002 - 10/2002

- Seismic Interpretation and Attribute Analysis.
- Carbonate Facies identification using multi attribute analysis.

ChevronTexaco E&P Technology Co., Bellaire,
Texas: Intern 05/2002 - 07/2002

- AVO modeling and Attribute analysis.
- AVO Interpretation: `soft` calibration in the absence of well control.

GETECH Inc. Houston: Research Collaborator 06/2001 - 12/2001

- Combined Seismic and Gravity data Modeling.

University of Miami School of Business, Academic Services,
Programmer and Database Administrator 06/1997 - 05/2001

- Tech support and general office tasks.
- Design and implementation of operational databases.

Art of Business Inc., Miami, Florida: Self Employed,
Construction Contractor 12/1992 - 01/1996

- Proposals preparation, contract bidding and supervision of sub-contractors.
-

PUBLICATIONS

Juried or refereed journal articles and exhibitions:

	Web of Science metrics	Google	
Citations	1102	1948	1/10/2023
H-Index	17	20	1/10/2023

- 2022 **Weger, R.J.**, Eberli, G.P., Rodriguez-Blanco, L.R., Tenaglia, M., and Swart, P.K., (in review), Finding a VOICE in the Southern Hemisphere: The Carbon Isotopic Composition of Organic and Inorganic Sediments in the Vaca Muerta Formation, Argentina, *GSA Bulletin*
- Rodriguez-Blanco, L.R., Swart, P.K., Eberli, G.P., and **Weger, R.J.**, Negative $\delta^{13}\text{C}_{\text{carb}}$ values in shales at the Jurassic-Cretaceous boundary – Vaca Muerta Formation, Neuquén Basin, Argentina, *Palaeogeography, Palaeoclimatology, Palaeoecology*
- Diaz, M.R., Eberli, G.P., and **Weger, R.J.**, Indigenous microbial communities as catalysts for early marine cements: an in vitro study, Special Issue on "Carbonate Diagenesis" in the *Depositional Record*
- Rodriguez-Blanco, L.R., Eberli, G.P., **Weger, R.J.**, McNeill, D.F., and Swart, P.K., Quantifying concretion distribution in shales of the Vaca Muerta-Quintuco system, Neuquén Basin, Argentina. *AAPG Bulletin*, 106(2), 409-436.
- Wang, Y., Grammer, G.M., Eberli, G.P., **Weger, R.J.**, and Nygaard, R., Testing rebound hardness for estimating rock properties from core and wireline logs in mudrocks. *Journal of Petroleum Science and Engineering*, 210, 109973.
- 2021 Raj, R., Jaiswal, P., Wang, Y., Grammer, G.M., and **Weger, R.J.**, How nanopores influence dry-frame VP pressure sensitivity: *Frontiers in Earth Science*, v. 9, p. 89.
- 2020 Rodriguez-Blanco, L., Eberli, G.P., **Weger, R.J.**, Swart, P.K., Tenaglia, M., Rueda, L., and McNeill, D.F., Periplatform ooze in a mixed siliciclastic-carbonate system - Vaca Muerta Formation, Argentina: *Sedimentary Geology*, v. 396, art no. 105521.
- Tenaglia, M., Eberli, G. P., **Weger, R.J.**, Blanco, L. R., Rueda Sánchez, L. E., and Swart, P. K., Total organic carbon quantification from wireline logging techniques: A case study in the Vaca Muerta Formation, Argentina: *Journal of Petroleum Science and Engineering*, v. 194, p. 107489.
- Ukar, E., Gale, J.F., Fall, A., López, R.G., Hryb, D., Manceda, R., Brisson, I., Hernandez-Bilbao, E., **Weger, R.J.**, and Marchal, D.A., Natural fractures: From core and outcrop observations to subsurface models, in Minisini, D., Fantín, M., Lanusse Noguera, I., and Leanza, H.A., eds., *Integrated Geology of Unconventionals: The case of the Vaca Muerta play, Argentina: AAPG Memoir 121*, doi: 10.1306/13682234M1203837.
- Waite, A.J., Klavans, J.M., Clement, A.C., Murphy, L.N., Liebetrau, V., Eisenhauer, A., **Weger, R.J.**, and Swart, P.K., Observational and Model Evidence for an Important Role for Volcanic Forcing Driving Atlantic Multidecadal Variability Over the Last 600 Years: *Geophysical Research Letters*, v. 47, e2020GL089428.
- 2019 **Weger, R.J.**, Murray, S. T., McNeill, D. F., Swart, P. K., Eberli, G. P., Rodriguez Blanco, L., Tenaglia, M., and Rueda, L. E., Paleothermometry and distribution of calcite beef in the Vaca Muerta Formation, Neuquén Basin, Argentina: *AAPG Bulletin*, v. 103, no. 4, p. 931-950.
- 2018 Vanden Berg, B., Nussbaumer, C., Noack, A., Thornton, J., **Weger, R.J.**, Eberli, G. P., and Grammer, G. M., A comparison of the relationship between measured acoustic response and porosity in carbonates across different geologic periods, depositional basins, and with variable mineral composition: *Interpretation*, v. 6, no. 2, p. T245-T256.

- Norbisrath, J. H., Eberli, G. P., Shen, S., and **Weger, R.J.**, Complex resistivity spectra for estimating permeability in dolomites from the Mississippian Madison Formation, Wyoming: *Marine and Petroleum Geology*, v. 89, p. 479-487.
- 2017 Norbisrath, J. H., Grammer, G. M., Vanden Berg, B., Tenaglia, M., Eberli, G. P., and **Weger, R.J.**, Nanopore Imaging in Vaca Muerta Mudrocks to Evaluate Controls on Complex Resistivity Spectra in Unconventional Reservoirs: *SPE Reservoir Evaluation & Engineering*, v. 20, no. 04, p. 1,028-021,044.
- Norbisrath, J. H., **Weger, R.J.**, and Eberli, G. P., Complex resistivity spectra and pore geometry for predictions of reservoir properties in carbonate rocks: *Journal of Petroleum Science and Engineering*, v. 151, p. 455-467.
- 2016 Hubral, P., Landa, E., Shtivelman, V., Gelchinsky, B., Kanasewich, E. R., Phadke, S. M., Keydar, S., Zavalishin, B., Khaidukov, V., Moser, T., Grasmueck, M., **Weger, R.J.**, and Heinrich, H., Diffraction Imaging, *Seismic Diffraction*, Society of Exploration Geophysicists, p. 655-800.
- 2015 Norbisrath, J. H., Eberli, G. P., Laurich, B., Desbois, G., **Weger, R.J.**, and Urai, J. L., Electrical and fluid flow properties of carbonate microporosity types from multiscale digital image analysis and mercury injection: *AAPG Bulletin*, v. 99, no. 11, p. 2077-2098.
- Zeller, M., Reid, S. B., Eberli, G. P., **Weger, R.J.**, and Massaferro, J. L., Sequence architecture and heterogeneities of a field-Scale Vaca Muerta analog (Neuquén Basin, Argentina)—From outcrop to synthetic seismic: *Marine and Petroleum Geology*, v. 66, p. 829-847.
- Wang, Z., Wang, R., **Weger, R.J.**, Li, T., and Wang, F., Pore-scale modeling of elastic wave propagation in carbonate rocks: *Geophysics*, v. 80, no. 1, p. D51-D63.
- 2011 Verwer, K., Eberli, G. P., and **Weger, R.J.**, Effect of pore structure on electrical resistivity in carbonates: *AAPG Bulletin*, v. 95, no. 2, p. 175-190.
- 2010 Verwer, K., Eberli, G., Baechle, G., and **Weger, R.J.**, Effect of carbonate pore structure on dynamic shear moduli: *Geophysics*, v. 75, no. 1, p. E1-E8.
- 2009 Weger, R.J., Eberli, G. P., Baechle, G. T., Massaferro, J. L., and Sun, Y.-F., Quantification of pore structure and its effect on sonic velocity and permeability in carbonates: *AAPG Bulletin*, v. 93, no. 10, p. 1297-1317.
- Baechle, G., Eberli, G., **Weger, R.J.**, and Massaferro, J.L., Changes in dynamic shear moduli of carbonate rocks with fluid substitution, *Geophysics*. 74: E135–47.
- 2008 Baechle, G. T., Colpaert, A., Eberli, G. P., and **Weger, R.J.**, Effects of microporosity on sonic velocity in carbonate rocks: *The Leading Edge*, v. 27, no. 8, p. 1012-1018.
- 2007 Fabricius, I. L., Baechle, G., Eberli, G. P., and **Weger, R.J.**, Estimating permeability of carbonate rocks from porosity and v_p/v_s : *Geophysics*, v. 72, no. 5, p. E185-E191.
- 2005 Baechle, G. T., **Weger, R.J.**, Eberli, G. P., Massaferro, J. L., and Sun, Y.-F., Changes of shear moduli in carbonate rocks: Implications for Gassmann applicability: *The Leading Edge*, v. 24, no. 5, p. 507-510.
- Grasmueck, M., **Weger, R.J.**, and Horstmeyer, H., Full-resolution 3D GPR imaging: *Geophysics*, v. 70, no. 1, p. K12-K19.
- 2004 Grasmueck, M., **Weger, R.J.**, and Horstmeyer, H., Three-dimensional ground-penetrating radar imaging of sedimentary structures, fractures, and archaeological features at submeter resolution: *Geology*, v. 32, no. 11, p. 933-936.
- 2002 Grasmueck, M., and **Weger, R.J.**, 3D GPR reveals complex internal structure of Pleistocene oolitic sandbar: *The Leading Edge*, v. 21, no. 7, p. 634-639.

Other works, publications, and abstracts:

- 2019 **Weger, R.J.**, Rodriguez Blanco, L., Swart, P., and Eberli, G., Lateral Variability in a Basinal setting of the Vaca Muerta Formation Setting, in Technical Program AAPG International Conference & Exhibition, Buenos Aires, Argentina
- Weger, R.J.**, Rodrigues Blanco, L. R., Swart, P.K., and Eberli, G. P., Lateral Variability in a Basinal Setting of the Vaca Muerta Formation, AAPG International Conference and Exhibition, Buenos Aires.
- Eberli, G. P., **Weger, R.J.**, Rodrigues Blanco, L. R., Rueda, L., Tenaglia, M., Yüksek, M. K., McNeill, D. F., and Zeller, M., Lessons from the Outcrop for the Subsurface, Vaca Muerta-Quintuco Formations, Argentina, AAPG International Conference and Exhibition, Buenos Aires.
- Rodriguez Blanco, L. R., McNeill, D. F., **Weger, R.J.**, and Eberli, G. P., Unraveling Concretion Occurrence within the Vaca Muerta Formation, AAPG International Conference and Exhibition, Buenos Aires.
- 2018 Rodriguez Blanco, L., Eberli, G., Swart, P., and **Weger, R.J.**, Stable Isotope Signature of the Tithonian-Valangian Strata of the Vaca Muerta-Quintuco System in The Neuquén Basin in Proceedings X Congreso de Exploración y Desarrollo de Hidrocarburos, Mendoza, Argentina, Volume 5, IAPG, p. 43-59.
- Weger, R.J.**, Yüksek, M. K., Eberli, G., Swart, P., Rodriguez Blanco, L., and Tenaglia, M., Acoustic Properties of Short Core Samples from the Vaca Muerta Formation, Neuquén Basin, Argentina, in Proceedings X Congreso de Exploración y Desarrollo de Hidrocarburos, Mendoza, Argentina, Volume 3, IAPG, p. 361-370.
- Rodriguez Blanco, L. R., Eberli, G. P., **Weger, R. J.**, Tenaglia, M., and Rueda, L., Periplatform Ooze Within the Vaca Muerta Formation, Neuquén Basin, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- Eberli, G., Díaz, M., **Weger, R. J.**, and Karaca, E., Increasing Rock Strength and Reservoir Quality with Early Microbial Cements, in Proceedings AAPG Annual Convention and Exhibition.
- Tenaglia, M., **Weger, R. J.**, Eberli, G., and Swart, P., Stratigraphic and Regional Distribution of TOC in the Vaca Muerta Formation, in Proceedings AAPG Annual Convention and Exhibition 2018.
- Weger, R. J.**, Yüksek, M. K., Swart, P., and Eberli, G., Acoustic Facies Characterization, Vaca Muerta Formation, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- 2017 Eberli, G. P., Weger, R.J., Tenaglia, M., Rueda, L., Rodriguez Blanco, L., Zeller, M., McNeill, D. F., Murray, S., and Swart, P. K., The unconventional play in the Neuquén Basin, Argentina – Insights from the outcrop for the subsurface: Austin, TX, Unconventional Resources Technology Conference (URTEC).
- Reijenstein, H. M., Dominguez, R. F., Bande, A., Vallejo, M. D., Notta, R., Guerberoff, D., Lanusse, I., Kohler, G., Borgnia, M., Benoit, S., Leanza, H. A., Gómez Rivarola, L., **Weger, R.J.**, González Tomassini, F., Kietzmann, D., Rodríguez Schelotto, M. L., Desjardins, P., Marchal, D., Martínez, A., Vittore, F., Fantín, M., Depine, G., Sattler, F., and Rosemblat, A., Transecta Sísmica Regional del Sistema Vaca Muerta – Quintuco: Interpretación de Facies Sísmicas Basada en Impedancia Acústica y Litofacies Dominantes in Proceedings XX Congreso Geológico Argentino, San Miguel de Tucumán, Argentina, Simposio 5, Geología de la Formación Vaca Muerta.
- Rodriguez Blanco, L., Eberli, G. P., and **Weger, R.J.**, Distribution and source of carbonate-rich intervals within the Vaca Muerta Formation, in Proceedings XX Congreso Geológico Argentino, San Miguel de Tucumán, Argentina, Simposio 5, Geología de la Formación Vaca Muerta.
- Weger, R. J.**, Murray, S., and McNeill, D. F., Clumped Isotope Paleothermometry of Calcite Beef in The Vaca Muerta Formation in Proceedings XX Congreso Geológico Argentino, San Miguel de Tucumán, Argentina, Simposio 5, Geología de la Formación Vaca Muerta.

- Weger, R.J.**, Rodriguez Blanco, L., and Eberli, G. P., A Basinal Reference Section and Lateral Variability of The Vaca Muerta Formation in the Neuquén Basin, in Proceedings XX Congreso Geológico Argentino, San Miguel de Tucumán, Argentina, Simposio 5, Geología de la Formación Vaca Muerta.
- Eberli, G., Karaca, E., **Weger, R. J.**, Suosaari, E. P., and Reid, R. P., Pore-Structure and Petrophysical Characteristics of Hamelin Pool Stromatolites and Associated Cemented Coquina Beds, in Proceedings AAPG Annual Convention and Exhibition.
- Sánchez, L. E. R., McNeill, D. F., Eberli, G., Tenaglia, M., Peterson, L., Swart, P., and **Weger, R. J.**, High-Resolution Geochemical Analysis of Cycles of the Vaca Muerta Formation, Neuquén Basin, in Proceedings AAPG Annual Convention and Exhibition.
- Schnyder, J., Eberli, G., McNeill, D. F., and **Weger, R. J.**, Elastic Properties of Great Bahama Bank from Platform Top to the Toe-of-Slope, in Proceedings AAPG Annual Convention and Exhibition.
- Tenaglia, M., **Weger, R. J.**, Eberli, G., Sánchez, L. E. R., Blanco, L. R., and Swart, P., TOC Distribution and Prediction in the Vaca Muerta Formation, Neuquén Basin, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- 2016 McNeill, D. F., Swart, P., Blanco, L. R., Tenaglia, M., **Weger, R.J.**, Sánchez, L. E. R., Burke, B. G., Klaus, J. S., and Eberli, G. P., Concretions in the Mixed System: Microbial-Driven Early Marine Calcite Cementation, in Proceedings AAPG Annual Convention and Exhibition.
- Santana, T., **Weger, R.J.**, Gandi, S., D'Odorico, A., and Ziyisyian, A. P. K., Applying Rock Physics Towards Seismic Characterization: Case Study from an Unconventional Resource, Neuquén Basin, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- Tenaglia, M., Blanco, L. R., Sánchez, L. E. R., Eberli, G. P., **Weger, R.J.**, and Swart, P., Stratigraphic Distribution of Source Rock Intervals in the Vaca Muerta Formation, in Proceedings AAPG Annual Convention and Exhibition.
- Weger, R.J.**, Tenaglia, M., Swart, P., and Eberli, G. P., Ultrasonic Vertical Transverse Isotropy in High TOC Mudstones from the Vaca Muerta Formation, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- 2015 Norbistrath, J. H., Eberli, G. P., and Weger, R.J., Complex resistivity spectra and fractal pore geometries in relation to flow properties in carbonate rocks, in Proceedings AAPG Annual Convention and Exhibition.
- Tenaglia, M., **Weger, R. J.**, Eberli, G. P., and Swart, P., Lithology and TOC at the Base of the Vaca Muerta Formation, Neuquén Basin, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- Weger, R. J.**, Karaca, E., Tenaglia, M., Swart, P., and Eberli, G. P., Acoustic Properties of Unconventional Mineral Combinations from the Vaca Muerta Formation, Neuquén Basin, Argentina, in Proceedings AAPG Annual Convention and Exhibition.
- 2014 Zeller, M., Eberli, G. P., Weger, R.J., Giunta, D. L., and Massaferro, J. L., Seismic expressions of the Quintuco–Vaca Muerta system based on outcrop facies and geometry, in Proceedings IX Congreso de Exploración y Desarrollo de Hidrocarburos, Mendoza, Argentina, Volume 2, IAPG, p. 209-224.
- Vanden Berg, B., Grammer, M., Eberli, G. P., **Weger, R. J.**, Unconventional Carbonate Reservoir Characterization Using Sonic Velocity and Characterization of Pore Architecture: An Example from the Mid-Continent Mississippian Limestone, in Proceedings AAPG Annual Convention and Exhibition.
- Norbistrath, J. H., Laurich, B., Urai, J., Desbois, G., Eberli, G. P., Verwer, K., **Weger, R. J.**, Assessing Control of Pore Network Geometry on Electrical Resistivity Using Integrated Multiscale Digital Image Analysis and Mercury Injection Capillary Pressure, in Proceedings AAPG Annual Convention and Exhibition.

- Marchesini, P., Grasmueck, M., Eberli, G. P., **Weger, R. J.**, Visualizing Fluid Flow in Structurally Deformed Carbonates Using 4-D GPR and Dynamic Modeling, in Proceedings AAPG Annual Convention and Exhibition.
- 2013 Marchesini, P., Grasmueck, M., Eberli, G. P., and Weger, R.J., 4D GPR for characterization of fluid flow in carbonates: insights from structural-vs. stratigraphic-controlled domains and comparison with eclipse dynamic modeling: American Association of Petroleum Geologists: Search and Discovery Article, v. 41179, p. 22.
- Marchesini, P., Grasmueck, M., Eberli, G. P., **Weger, R. J.**, Characterization of Fluid Dynamics in Carbonate Reservoirs using 4-D GPR: Assessment of Stratigraphic and Structural Controls on Flow and Comparison with Dynamic Modeling, in Proceedings AAPG Annual Convention and Exhibition.
- Norbisrath, J. H., Eberli, G. P., **Weger, R. J.**, Verwer, K., Urai, J., Desbois, G., Laurich, B., Sub-Micron Digital Image Analysis (BIBSEM-DIA), Pore Geometries and Electrical Resistivity in Carbonate Rocks, in Proceedings AAPG Annual Convention and Exhibition.
- 2012 **Weger, R. J.**, Swart, P. K., Eberli, G. P., Velocity Evolution during Controlled CaCO₃ Precipitation and Dissolution, in Proceedings AAPG Annual Convention and Exhibition.
- Norbisrath, J. H., Eberli, G. P., Weger, R.J., Knackstedt, M., Verwer, K., Modeling Electrical Resistivity in Carbonates Using Micro-CT Scans and Assessing the Influence of Microporosity with MICP, in Proceedings AAPG Annual Convention and Exhibition.
- Eberli, G. P., Verwer, K., Della Porta, G., and **Weger, R.J.**, The role of microbial activity on petrophysical properties, in Proceedings AAPG Hedberg Conference, p. 4.
- 2011 **Weger, R. J.**, Verwer, K., Eberli, G. P., Baechle, G., Capturing Porestructures with Digital Image Analysis for a Quantitative Correlation to Physical Properties, in Proceedings AAPG Annual Convention and Exhibition.
- 2010 El Hussein, A. H., Al Mesaabi, S. A., Vega, S., Ali, M., **Weger, R.J.**, Eberli, G. P., Correlation and Integration of Seismic Velocities, Rock Properties, and Pore Structure in from Outcrop of Wasia Group Rocks in the UAE, AAPG GEO 2010 Middle East, Manama, Bahrain
- 2009 Verwer, K., Eberli, G. P., Weger, R. J., Fabricius, I. L., Baechle, G. T., Effect of Pore Structure from Dynamic Shear Moduli in Carbonates, in Proceedings AAPG Annual Convention and Exhibition.
- 2008 Knackstedt, M. Madadi, M., Arns, C., Baechle, G., Eberli, G. P., Weger, R. J., Carbonate Petrophysical Parameters Derived from 3-D Images, in Proceedings AAPG Annual Convention and Exhibition (George C. Matson Award, best oral presentation at the AAPG Annual Convention 2018)
- Baechle, G., Colpaert, A., Eberli, G. P., **Weger, R. J.**, Modeling Sonic Velocity in Carbonates Using Thin Sections, in Proceedings AAPG Annual Convention and Exhibition.
- 2007 Baechle, G. T., Colpaert, A., Eberli, G. P., and **Weger, R.J.**, Modeling velocity in carbonates using a dual-porosity DEM model, SEG Technical Program Expanded Abstracts Society of Exploration Geophysicists, p. 1589-1593.
- Bracco Gartner, G., **Weger, R. J.**, Hendrson, J., Dunne, J., and Asyee, W., Solving the Inter-Well Problem: Pore Shape and Connectivity from Seismic Inversion in a Carbonate Reservoir, Carbonate Reservoirs - Unlocking the Potential from Established and New Plays, AAPG & AAPG European Region Energy Conference and Exhibition (November 18-21, 2007),
- Weger, R. J.**, Baechle, G. T., Eberli, G. P., Massaferro, J.-L., and Sun Y.F., Deriving Pore Structure and Permeability from Sonic Velocity in Carbonates, in Proceedings AAPG Annual Convention and Exhibition.
- Baechle, G.T., **Weger, R. J.**, Eberli, G. P., and Boyd A., Effects of pore type and Fluid Saturation on Acoustic Properties in Carbonates. Challenges in Seismic Rock Physics, EAGE & SEG summer workshop, Beijing, China

- 2006 Baechle, G. T., **Weger, R.J.**, Eberli, G. P., and Colpaert, A., Pore size and pore type effects on velocity—Implication for carbonate rock physic models, in Proceedings Workshop “The Sound of Geology”, CIPR, Norway, Volume 26.
- Colpaert, A., Baechle, G. T., Brevik, I., **Weger, R.J.**, Eberli, G. P., and Mienert, J., Elastic properties and fluid substitution in carbonate rocks from experimental velocity data and pore shape analysis, in Proceedings Workshop “The Sound of Geology”, CIPR, Norway, Volume 26.
- Sun, Y., Berteussen, K., Vega, S., Eberli, G. P., Baechle, G., **Weger, R.J.**, Massaferro, J., Gartner, G. B., and Wagner, P., Effects of pore structure on 4D seismic signals in carbonate reservoirs, SEG Technical Program Expanded Abstracts, Society of Exploration Geophysicists, p. 3260-3264.
- Eberli, G. P., Massaferro, J.-L., **Weger, R. J.**, Sun, Y. F., Baechle, G. T., and Bracco Gartner, G., Permeability from Seismic in Carbonate Reservoirs, Part I: Dream or Reality?, in Proceedings AAPG Annual Convention and Exhibition.
- Bracco Gartner, G. L., **Weger, R. J.**, Nasser, M., Leguijt, J., van der Kolk, K., Hillgaertner, H., Asyee, W., Eberli, G. P., Sun Y. F., and Wagner, P. D., Permeability from Seismic in Carbonate Reservoirs, Part II: The Field Example, in Proceedings AAPG Annual Convention and Exhibition.
- 2005 Baechle, G. T., **Weger, R. J.**, Eberli, G. P., Massaferro, J.-L., Pore structure effects on elastic moduli - porosity relationships in carbonate rocks, American Geophysical Union, Spring Meeting, abstract #T43A-03
- Baechle, G. T., **Weger, R. J.**, Eberli, G. P., Pore Structure Effects on Velocity and Elastic Moduli in Carbonate Rocks, SPE Forum Series in Mexico: “Future Challenges in Carbonate Resource Development”, 23-28 October 2005, in Los Cabos, Mexico
- Baechle, G. T., **Weger, R. J.**, Eberli, G. P., Pore structure effects on elastic moduli - porosity relationships in carbonate rocks, AGU Joint Assembly, New Orleans.
- Bracco Gartner, G., Wagner, P., Baechle, G., Sun, Y., **Weger, R.J.**, Eberli, G. P., Asyee, W., Hillgartner, H., Van der Kolk, K., and Leguijt, J., Obtaining permeability from seismic data-A new breakthrough in carbonate reservoir modelling, in Proceedings International Petroleum Technology Conference, Qatar, Paper 10577, p. 937.
- 2004 Baechle, G. T., **Weger, R.J.**, Eberli, G. P., and Massaferro, J.-L., The role of macroporosity and microporosity in constraining uncertainties and in relating velocity to permeability in carbonate rocks, SEG Technical Program Expanded Abstracts 2004, Society of Exploration Geophysicists, p. 1662-1665.
- Grasmueck, M., **Weger, R.J.**, and Horstmeyer, H., Full-resolution 3D GPR imaging for geoscience and archeology, in Proceedings Proceedings of the Tenth International Conference on Grounds Penetrating Radar, 2004, Volume 1, IEEE, p. 329-332.
- Weger, R.J.**, Baechle, G. T., Masaferro, J. L., and Eberli, G. P., Effects of porestructure on sonic velocity in carbonates, SEG Technical Program Expanded Abstracts 2004, Society of Exploration Geophysicists, p. 1774-1777.
- Baechle, G. T., **Weger, R. J.**, Eberli, G. P., 2004, Experimental fluid substitution studies question applicability of Gassmann's theory in carbonate rocks. AAPG regional meeting El Paso.
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- Massaferro, J.-L., Eberli, G. P., Baechle, G. T., **Weger, R. J.**, Combining seismic, geological and petrophysical knowledge for carbonate reservoir characterization: An example from a Lower Cretaceous reservoir, UAE. 11TH Abu Dhabi International Petroleum & Gas Conference.
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- 2003 Grasmueck, M., **Weger, R.J.**, and Horstmeyer, H., How dense is dense enough for a 'real' 3D GPR Survey?, SEG Technical Program Expanded Abstracts, Society of Exploration Geophysicists, p. 1180-1183.
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- Weger, R. J.**, Baechle, G. T., Bracco Gartner, G., Eberli, G. P., XPL in Thin Section Image Analysis: The Key to Digital Petrography, Poster at Carbonate Research Group Meeting in Salt Lake City / AAPG 2003
- 2002 Grasmueck, M., **Weger, R.J.**, Reassessment of local paleocurrent directions in the Miami oolitic limestone with 3D ground-penetrating radar, in Proceedings of the Ninth International Conference on Grounds Penetrating Radar, Volume 4758, International Society for Optics and Photonics, p. 211-217.
- 2001 **Weger, R. J.**, Rosendahl, B. R., Odegard, M. E., New constraints on rift margin development through integration of deep-imaging seismic interpretation and gravity modeling, Abstracts with Programs - Geological Society of America, vol.33, no.6, pp.209
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PROFESSIONAL

Funded Research Performed:

- Ecopetrol, Acoustic Properties Measurement Training,
USD 297,600.00; UM Contract #: 31869 2019-2022*
- Schlumberger-Doll Research, Acoustic Properties of Soft Sediments,
USD 14,310.00; UM Contract #: NCurtis-201712-1243 2017-2018*
- Petrobras S.A., Rock Fluid Interaction Project,
USD 82,400.00; UM Contract #: 1623MGS..... 2014-2016*

Professional and Honorary Organizations:

- AAPG American Association of Petroleum Geology; 2000 - Present*
- EAGE European Association of Geoscientists and Engineers 2002 - Present*
- SEG Society of Exploration Geophysicists 2004 - Present*
- SEPM Society for Sedimentary Geology..... 2000 - 2019*

Honors and Awards:

- 2006 Award of Academic Excellence from the Graduate School of the University of Miami
 - 2005 Honorable Mention in the category of Best Paper in Geophysics
 - 2005 Fritz Koczy Doctoral Research Fellowship for Outstanding Ph.D. Scholarship
 - 2004 Best Student Poster Paper Presented at the 2004 SEG Annual Meeting
 - 2002 Student of the Year Award (RSMAS/MGG)
 - 2000-2004 University of Miami Fellowship, Marine Geology and Geophysics
 - 2000 The Beatrice Gitlow Endowed Award in Management Science
 - 2000 Management Science Departmental & Academic Honoree
 - 1996-1999 President's Honors Roll and Dean's List, University of Miami, School of Business
-

TEACHING*University of Miami*

MGS 785/688 Petrophysics of Carbonates*2014 - Present

* = co-listed with Gregor Eberli

External short courses organized and co-lead:

- 1) Outcrop Evaluation for Subsurface Correlation of the Vaca Muerta Formation, Neuquén Basin, Argentina,March, 2018
- 2) Equinor Field Trip: Outcrop Evaluation for Subsurface Correlation of the Vaca Muerta Formation, Neuquén Basin, Argentina, November, 2018
- 3) Unconventional Reservoirs in the Vaca Muerta Formation, Neuquén Basin, Argentina,March, 2017
- 4) The Outcrop analog to the Unconventional Reservoirs in the Vaca Muerta Formation, Neuquén Basin, Argentina, November, 2016
- 5) Shell Internal Field Trip: The Outcrop analog to the Unconventional Reservoirs in the Vaca Muerta Formation, Argentina, November, 2016
- 6) YPF Field Trip: Neuquén Basin ArgentinaMarch, 2015
- 7) CSL Post-Meeting Field Trip: Neuquén Basin ArgentinaOctober, 2014
- 8) YPF Field Trip: Neuquén Basin Argentina November, 2014

Thesis and Dissertation Advising/Post-doctoral student supervision:

Partial technical supervision and mentoring of Ph.D. students:

- 1) Jan Norbistrath 2016
- 2) Maximillian Tenaglia 2020

Partial technical supervision and mentoring of Masters students:

- 1) Albertus Ditya 2013
- 2) Irena Maura 2013
- 3) Ergin Karaca 2015
- 4) Leticia Rodriguez Blanco 2016
- 5) Yuksek Mustafa 2018

Partial technical supervision and mentoring of Ph.D. students at other institutions:

- 1) Beth Vanden Berg, Combining Pore Architecture and Sonic Velocity Response to Predict Reservoir Quality in complex Carbonate Reservoirs, Oklahoma State University2015-2016
- 2) Raj Rohit, The effect of pore distribution on elastic velocities (P-wave and S-wave) in unconventional mixed carbonate-siliciclastic reservoirs, Oklahoma State University2018-2019
- 3) Yulun Wang, Integrated Reservoir Characterization of Mississippian Unconventional Carbonates, Oklahoma State University2017-2018

