

Dr. Pierpaolo Marchesini - CV

Postdoctoral Fellow
Geophysics Department
Energy Geosciences Division
Lawrence Berkeley National Laboratory

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MAIN EXPERTISE

- SUBSURFACE IMAGING;
- CROSS-WELL SEISMIC FOR RESERVOIR MONITORING;
- INTEGRATION OF GEOPHYSICAL, GEOLOGICAL, AND PETROPHYSICAL DATASETS FOR RESERVOIR CHARACTERIZATION, SURVEILLANCE, AND MONITORING;
- GEOPHYSICAL EQUIPMENT AND SOFTWARE DESIGN & DEVELOPMENT;
- 2D/3D SEISMIC AND 3D/4D GROUND PENETRATING RADAR (GPR) DATA PROCESSING.

WORK EXPERIENCE

- 2015- Lawrence Berkeley National Laboratory, Berkeley, CA (USA)**
Postdoctoral Fellow
- Cross-well seismic for pressure changes monitoring after CO₂ injection for carbon sequestration and EOR applications.
- 2008-2015 CSL - Center for Carbonate Research, Miami, FL (USA)**
Research Assistant
- High-resolution 3D/4D subsurface imaging for fractured reservoir analog characterization, surveillance, and monitoring;
 - G&G field data acquisition, processing, interpretation;
 - Seismic Processing Laboratory supervisor.
- 2010-2011 University of Miami, Coral Gables, FL (USA)**
Teaching Assistant
- Applied Marine Geology
Department of Geological Science
- 2007-2008 Witten Technologies, Inc., R&D Division, Somerville, MA (USA)**
Intern
- Development of high-precision positioning systems for large-scale 3D GPR and electromagnetic geophysical surveying;
 - Computer Assisted Radar Tomography (CART) and induction electromagnetics for subsurface imaging.

2006-2008 Politecnico di Milano, Applied Geophysics Group, Milan (Italy)
Research Associate

- Development of multi-frequency 3D GPR systems for efficient and high-resolution 3D geophysical surveying;
- High-frequency 3D GPR for structural evaluation of historical buildings, subsurface characterization, civil and environmental engineering applications, forensics, UXO, national security.

EDUCATION

2015 PhD, University of Miami (USA)
Marine Geology and Geophysics

2005 MS, Politecnico di Milano (Italy)
Electrical Engineering

LANGUAGES

- ENGLISH: full professional proficiency
- ITALIAN: native proficiency

COMPUTER SKILLS

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|--|-------------------------|
| - LANDMARK PROMAX 3D/4D (PROCESSING) | - REFLEX (GPR, SEISMIC) |
| - LANDMARK GEOPROBE (INTERPRETATION) | - MATHWORKS MATLAB |
| - PETREL (INTERPRETATION AND MODELING) | - GOCAD (BASICS) |
| - IHS KINGDOM SUITE | - OS: MICROSOFT, LINUX |
| - NATIONAL INSTRUMENTS LABVIEW | - ADOBE CS / MS OFFICE |

PUBLICATIONS, TALKS, AND POSTERS

Publications

Marchesini, P., and Grasmueck, M.
(2015). The impact of high-density spatial sampling versus antenna orientation on 3D GPR fracture imaging. Near Surface Geophysics, 13(2), 197-207, doi: 10.3997/1873-0604.2015007

Talks

Marchesini, P., Grasmueck, M., Eberli, G. P., Zeller, M., Van Dam, R.
"Tracking and quantifying fluid flow at a fractured carbonate field site with 4D Ground Penetrating Radar (GPR)"
American Association of Petroleum Geologists (AAPG) Annual Convention&Exhibition
April 10-13, 2011, Houston, TX (USA)

Marchesini, P., Grasmueck, M., Eberli, G. P., 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 (AAPG) Annual Convention&Exhibition
May 19-22, 2013, Pittsburgh, PA (USA)

Marchesini, P., Grasmueck, M., Eberli, G. P., Weger, R. J.
“Visualizing Fluid Flow in Structurally Deformed Carbonates using 4D Ground Penetrating Radar (GPR)”
American Association of Petroleum Geologists (AAPG) Annual Convention&Exhibition
April 6-9, 2014, Houston, TX (USA)

Posters

Marchesini, P., Grasmueck, M., Eberli, G. P., Zeller, M., Van Dam, R.
“Tracking Fluid Flow with 4D Ground Penetrating Radar (GPR) in a Fractured Carbonate Reservoir”
American Association of Petroleum Geologists (AAPG) Annual Convention&Exhibition
April 11-14, 2010, New Orleans, LA (USA)

Marchesini, P., Grasmueck, M., Eberli, G. P.
“4D Ground Penetrating Radar (GPR) for Fluid Flow Characterization in a Fractured Carbonate Reservoir”
15th Annual AAPG-SEG Student Expo
September 17-18, 2012, Houston, TX (USA)

SCHOLARSHIPS AND AWARDS

2008-2010 Research Assistantship

Division of Marine Geology & Geophysics
University of Miami/RSMAS, Miami, FL (USA)

2010-2011 Teaching Assistantship

Dept. of Geological Science
University of Miami, Coral Gables, FL (USA)

2010 Young Researcher Session Award Nominee

XIII International Conference on Ground Penetrating Radar
June 21-25, 2010, Lecce (Italy)

2012 Society of Exploration Geophysicists (SEG) Travel Award

15th Annual AAPG-SEG Student Expo
September 17-18, 2012, Houston, TX (USA)

2015 “Gustavo Sclocchi” Dissertation Award

Awarded by EAGE (European Association of Geoscientists and Engineers) and SPE (Society of Petroleum Engineers) for great results with dissertations and doctoral degrees in petroleum engineering, geoscience and other disciplines related to the Oil & Gas industry

PROFESSIONAL ORGANIZATIONS

- 2008-** American Association of Petroleum Geologists (**AAPG**)
2008- Society for Sedimentary Geology (**SEPM**)
2009- Society of Exploration Geophysicists (**SEG**)
2011- European Association of Geoscientists and Engineers (**EAGE**)

REFERENCES

Dr. Gregor P. Eberli

Professor, Director

CSL - Center for Carbonate Research
University of Miami
4600 Rickenbacker Cswy
Miami, FL 33149 (USA)
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Dr. Luigi Zanzi

Professor, Director

Applied Geophysics Group
Politecnico di Milano
Piazza Leonardo da Vinci, 32
20133 - Milan (Italy)
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Dr. Mark Grasmueck

Professor, PI

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University of Miami
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Miami, FL 33149 (USA)
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Dr. Ralf J. Weger

Research Associate

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