Curriculum Vitae

Milena Marjanović

Institut de Physique du Globe de Paris (IPGP)
1 Rue Jussieu, office 354
75005 Paris
France
Tel. 06.51.30.30.07
e-mail: **marjanovic@ipgp.fr**
mmilky27@gmail.com

• CURRENT EMPLOYMENT

01/09/2015 - present Post-doctorate researcher in Marine Geophysics under EU Marie S. Curie Actions (MSCA-IF-EF, Proposal No: 655283 3DWISE)
Institution: Intsitute de Physique du Globe de Paris
Research topic: Application of waveform inversion techniques to active multichannel seismic dataset collected at the East Pacific Rise to look at the hydrothermal processes and characteristics of upper oceanic crust.

• EDUCATION

22/05/2013 **Doctorate degree (PhD)**
Columbia University in the City of New York/Lamont-Doherty Earth Observatory within the Department of Marine Geology and Geophysics, NY, USA
Thesis title: *"Signatures of present and past melt distribution at fast and intermediate spreading centers"*

18/05/2011 **Master of Philosophy**
Columbia University in the City of New York/Lamont-Doherty Earth Observatory within the Department of Marine Geology and Geophysics, NY, USA

21/05/2008 **Master of Arts**
Columbia University in the City of New York/Lamont-Doherty Earth Observatory within the Department of Marine Geology and Geophysics, NY, USA

31/10/2005 **Bachelor of Science**
Faculty of Mining and Geology, Department of Applied Geophysics, Belgrade University, Serbia.

• PREVIOUS POSITIONS

16/09/2014 – 31/08/2015 Post-doctorate researcher at Institut de Physique du Globe de Paris in France where I was developing and implementing novel techniques to extract quantitative information on the properties of oceanic crust. I have also been working on the

project funded by European Research Council ILAB Trans Atlantic awarded to Professor Satish Singh at IPGP.

• FELLOWSHIPS AND AWARDS

2015 - 2017 Marie Skłodowska-Curie Individual Fellowships (IF) within the call: H2020-MSCA-IF-2014 to conduct 3D Full-Waveform Inversion on 3D seismic dataset at the Institut de Physique du Globe de Paris in France, for two years with the starting date 01/09/2015.

2006 - 2013 Columbia University Fellowship, Columbia University in the City of New York/Department of Earth and Environmental Sciences at Lamont-Doherty Earth Observatory, NY, USA

03/2011 Grant from Chevron Student Initiative Fund for the project *"Illumination study from two azimuth seismic surveys at the East Pacific Rise 9ºN"*

09/2011 SEG Scholarship Award "Richard and Rolande Lockhart"

06/2010 Travel grant for the 72nd EAGE Conference in Barcelona, Spain

2008 - 2010 SEG Scholarship Award "Rodney Cottrell"

09/2007 SEG Scholarship Award "WesternGeco Scholarship"

2007 "Award for the Student of Generation 2005", Belgrade University, Serbia

09/2006 SEG Scholarship Award, "SEG Foundation General Scholarship"

06/2005 Travel grant for the 67th EAGE Conference in Madrid, Spain

2005 "Award for the Best Student Paper in 2004/05", Belgrade University, Serbia

2004 The Royal Norwegian Scholarship

2001; 2003 "The Charter of Professor Branislav A. Milovanović, Faculty of Mining and Geology/Department of Applied Geophysics, Belgrade University, Serbia

2000; 2002; 2004 Award for the best undergraduate student Faculty of Mining and Geology/Department of Applied Geophysics, Belgrade University, Serbia

• TEACHING ACTIVITIES

04/11/2016 Lecture on Active seismic data acquisition (master level), IPGP, France

17/10-20/10/2016 Field work for GPX-IPGP master students, Chartre, France

28/10/2015 Lecture on Active seismic data acquisition (master level), IPGP, France

20/01-07/05/2009 **Teaching Assistant** – Science for Sustainable Development (undergraduate level), Columbia University in the City of New York, School of International Public Affairs (SIPA), NY, USA

02/09-11/12/2008 **Teaching Assistant** – Solid Earth (undergraduate level), Columbia University in the City of New York, Department of Earth and Environmental Sciences, NY, USA

05/10-22/08/2006 **Teaching Assistant** – Geology (high-school level), Petnica Science

center, Serbia.

• RESEARCH EXPEDITIONS

09/03-05/01/2015 Trans-Atlantic imaging of the Lithosphere-Asthenosphere Boundary abord WesternGeco's Isometrix vessel *Western Trident*, collecting 2D seismic data with the main goal to look at the evolution of the Oceanic lithosphere. Position: post-doctorate participant.

15/07-02/08/2013 3D multichannel seismic survey at the East pacific Rise, aboard *R/V. M. Langseth*, Rice University, USA. Position: Co-PI.

07/01-17/01/2013 Geochemistry - Petrology field trip in Oman, Columbia University in the City of New York/ New York, The United States of America. Position: Graduate student participant.

09/06-09/07/2012 "From ridge to trench", Multichannel seismic and Ocean Bottom Seismometers active survey across the Juan de Fuca plate, aboard *R/V M. Langseth*, Columbia University in the City of New York, USA. Position: Graduate student participant.

21/11-06/12/2009 Ocean Bottom Seismometers survey at the Eastern Lau Spreading Center, aboard *R/V R. Revelle*, Columbia University in the City of New York, USA. Position:Graduate student participant

29/06-19/08/2008 3D multichannel seismic survey at the East pacific Rise, aboard *R/V M. Langseth*, Columbia University in the City of New York, USA. Position: Graduate student participant.

• WORKING WITH INDUSTRY

01/06-02/09/2011 Internship at **ConocoPhillips** within Subsurface Technology Group – Processing Team. The goal of the internship was to develop and test flows in different data domains (x-t, f-k and tau-p) for successful wave field separation using four components ocean bottom nodes (OBN) data; Houston, TX, USA

01/06-31/08/2010 Internship at **ExxonMobil** within Exploration Group with Gravity and Magnetics Team. The goal of the internship was to create a database of rock properties (e.g. density, susceptibility, etc.) and use them in gravity/magnetics modeling; Houston, USA.

• PUBLICATIONS IN PEER-REVIEWED JOURNALS

Marjanović, M., H. D. Carton, M. R. Nedimović, S. M. Carbotte, J. Mutter, J. P. Canales, (2015), Distribution of melt along the East Pacific Rise from 9º30′ to 10ºN from an amplitude variation with angle of incidence (AVA) technique, *Geophysical Journal International* **203**, 1-21; doi: 10.1093/gji/ggv251

Marjanović, M., S. M. Carbotte, H. D. Carton, M. R. Nedimović, J. Mutter, J. P. Canales (2014), A multi-sill magma plumbing system beneath the axis of the East Pacific Rise, *Nature Geoscience,* DOI: 10.1038/NGEO2272.

Carbotte S. M., **M. Marjanović**, Carton, H. D., J. C. Mutter, M. R. Nedimović, J. P. Canales, Xu M., Aghaei O., M. Perfit, S. Han, (2013), Fine-scale segmentation of the

crustal magma reservoir beneath the modern eruptive zone of the East Pacific Rise, *Nature Geoscience,* DOI: 10.1038/NGEO1933.

Canales J. P., H. Carton, S. M. Carbotte, J. C. Mutter, M. R. Nedimović, M. Xu, O. Aghaei, **M. Marjanović** and K. Newman (2012) "Network of off-axis melt bodies at the East Pacific Rise", *Nature Geoscience*, doi: 10.1038/ngeo1377

Marjanović, M., S. M. Carbotte, M. R. Nedimović, and J. P. Canales (2011), Gravity and seismic study of crustal structure along the Juan de Fuca Ridge axis and across pseudofaults on the ridge flanks, *Geochem. Geophys. Geosyst.,* 12, Q05008, doi: 10.1029/2010GC003439.

Carbotte S. M., Nedimović M. R., Canales J. P., Kent G. M., Harding A., and **Marjanović M.,** (2008), "Variable crustal structure along the Juan de Fuca Ridge; influence of on axis hotspots and absolute plate motions", *Geochem. Geophys. Geosys.,* vol. 9, Q08001, doi: 10.1029/2007GC001922.

• CONEFERENCES

Marjanović M., N. Fuji, S. Singh, Seismic signatures of up- and down-going hydrothermal pathways along the East Pacific Rise 9ºN, Abstract T22C-05, 2016 Fall Meeting, AGU, San Francisco, California.

Marjanović M., S. Singh, P. Audhkhasi, F. Mehouachi, Seismic Reflection Imaging of the Lithosphere-asthenosphere Boundary Across the Atlantic Ocean, Abstract T41D-2926, 2015 Fall Meeting, AGU, San Francisco, California.

Marjanović M., Carton, H. D., S. M. Carbotte, J. C. Mutter, M. R. Nedimović, J. P. Canales, (2013), Seismic images of multiple magma sills beneath the East Pacific Rise, Abstract OS42A-05, Presented at 2012 Fall Meeting, AGU, San Francisco, California.

Marjanović M., Carton, H. D., S. M. Carbotte, J. C. Mutter, M. R. Nedimović, J. P. Canales, (2012), Distribution of melt at the East Pacific Rise 9°50'N from an amplitude variation with angle of incidence (AVA) technique, Abstract OS13D-1760, Presented at 2012 Fall Meeting, AGU, San Francisco, California.

Carbotte S.M., J. P. Canales, H. D. Carton, M. R. Nedimovic, S. Han, **M. Marjanović,** James C. Gibson, Helen A. Janiszewski, Greg Horning, Matthias Delescluse, Louise Watremez, Aaron Farkas, Berta Biescas Gorriz, Guillermo Bornstein, Laurel B. Childress, Beatrice Parker, (2012), Evolution and hydration of the Juan de Fuca crust and uppermost mantle: a plate-scale seismic investigation from ridge to trench, Abstract T13H-01, Presented at 2012 Fall Meeting, AGU, San Francisco, California.

Carbotte S. M., **Marjanović M.,** Carton, H. D., J. C. Mutter, M. R. Nedimović, J. P. Canales, Xu M., Aghaei O., (2011), The ups and downs of magma in the crust beneath the East Pacific Rise axis 8°20-10°10'N, Abstract OS22A-01, Presented at 2011 Fall Meeting, AGU, San Francisco, California.

Marjanović, M., S. M. Carbotte, H. D. Carton, J. C. Mutter, M. R. Nedimović, J. P. Canales, (2010), Axial magma chamber segmentation along the East Pacific Rise from Clipperton to Siqieros Fracture Zone, Abstract OS21C-1511, Presented at 2010 Fall Meeting, AGU, San Francisco, California.

Carbotte S. M., **Marjanović M.,** M. R. Nedimović, J. P. Canales, (2010), Melt anomalies and propagating ridge offsets: Insights from the East Pacific Rise and Juan de Fuca Ridge, Abstract OS21C-1515, Presented at 2010 Fall Meeting, AGU, San Francisco, California.

Carton, H. D., S. M. Carbotte, J. C. Mutter, J. P. Canales, M. R. Nedimović, O. Aghaei, **M. Marjanović**, and K. R. Newman, (2010), Three-dimensional seismic reflection images of axial melt lens and seismic layer 2A between 9°42'N and 9°57′N on the East Pacific Rise, Abstract OS21C-1514, Presented at 2010 Fall Meeting, AGU, San Francisco, California.

Mutter, J.C., H. Carton, **M. Marjanović**, S. Carbotte, J.P. Canales, and M.R. Nedimović, (2010), Eruption-related changes in magma chamber structure at 9°50'N on the EPR from coinci- dent reflection images, 1985 and 2008. Eos, Transactions, American Geophysical Union, Abstract OS24A-01.

Carton, H. D., S. M. Carbotte, J. C. Mutter, J. P. Canales, M. R. Nedimović, **M. Marjanović,** O. Aghaei, M. Xu, and S. Han and L. Stowe, Characteristics of the crustal body in the 2005- 2006 eruption area at 9º50'N on the East Pacific Rise from 3D multi-channel seismic data, (2009), Eos Trans. AGU, 90(52), Abstract OS11B-02, Presented at 2009 Fall Meeting, AGU, San Francisco, California.

Marjanović, M., S. M. Carbotte, M. R. Nedimović, J. P. Canales, (2008), Variations of the Crustal Structure Along the Juan de Fuca Ridge From Analysis of Gravity and Seismic Data, Eos Trans. AGU 89(53), Abstract V41B-2087, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

Carbotte S. M., J. C. Mutter, J. P. Canales, M. R. Nedimović, H. D. Carton, M. Xu, K. Newman, **M. Marjanović,** O. Aghaei, L. Stowe, (2008), New observations of the magmatic segmentation of the East Pacific Rise from Siquieros to Clipperton from a multi-streamer seismic reflection imaging study, Eos Trans., AGU, 89 (53), Abstract B21A-0320, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

Canales J. P., S. M. Carbotte, J. C. Mutter, M. R. Nedimović, H. Carton, M. Xu, O. Aghaei, K. Newman, **M. Marjanović** and (2008) "Discovery of off-axis melt lenses at the RIDGE2000 East Pacific Rise Integrated Study Site", Eos Trans., AGU, abstract #B21A-0319, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

Carton H. D., Carbotte S. M., J. C. Mutter, J. P. Canales, M. R. Nedimović, K. Newman, **M. Marjanović,** M. Xu, O. Aghaei, L. Stowe, (2008), Characteristics of the crustal magma body in the 2005-06 eruption area at 9°50'N on the East Pacific Rise from a 3D multi-channel seismic investigation, Eos Trans., AGU, 89 (53), Abstract B23F-03, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

Mutter J. C., Carton H. D., Carbotte S. M., J. P. Canales, M. R. Nedimović, K. Newman, **M. Marjanović,** M. Xu, O. Aghaei, L. Stowe, (2008), Searching for Changes in AMC Characteristics on the EPR Using Comparisons of Reflection Images Obtained in 1985 and 2008, Eos Trans., AGU, 89 (53), Abstract B21A-0321, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

Purdy G. M., Mutter J. C., Carton H. D., Carbotte S. M., J. P. Canales, M. R. Nedimović, K. Newman, **M. Marjanović,** M. Xu, O. Aghaei, L. Stowe, (2008), 3D Seismic Reflection Imaging of Crustal Formation Processes on the East Pacific Rise, 9°57-42'N, Eos Trans., AGU, 89 (53), Abstract B21A-0322, Presented at 2008 Fall Meeting, AGU, San Francisco, California.

• CONFERENCE PAPERS

Marjanović M., N. Fuji, S. Singh (2016), Imaging Hydrothermal Circulation Paths along the East Pacific Rise using Elastic Wave-equation based Inversin Techniques,

Conference and Exhibition incorporating SPE EUROPEC, Vienna 2016, Abstract doi: 10.3997/2214-4609.201601183 (EarthDoc).

Marjanović M., Carton, H. D., S. M. Carbotte, J. C. Mutter, M. R. Nedimović, J. P. Canales, (2015), Seismic Images of Multiple Magma Sills Beneath the East Pacific Rise, Conference and Exhibition incorporating SPE EUROPEC, Madrid 2015, Abstract doi: 10.3997/2214-4609.201413286 (EarthDoc).

Marjanović M., H. Carton, S. Carbotte (2013), AVA analysis applied to a molten rock, 75th EAGE Conference and Exhibition incorporating SPE EUROPEC, London 2013, Abstract doi. 10.3997/2214-4609.20130577 (EarthDoc).

Marjanović M., H. D. Carton, S. M., Carbotte, (2011), Investigation of axial magma chamber and its segmentation beneath the East Pacific Rise 9°N from seismic data, 73rd EAGE Conference and Exhibition, Vienna, Austria (EarthDoc).

Marjanović M., S. M. Carbotte, M. R. Nedimović, J. P. Canales, (2010), Variation of the crustal structure along the Juan de Fuca Ridge from analysis of gravity and seismic data, 72nd EAGE Conference and Exhibition, Barcelona, Spain (EarthDoc).

• TALKS

December 2016, *"Seismic signatures of up- and down-going hydrothermal pathways along the East Pacific Rise between 9º15' and 10ºN"*, IPGP, France

November, 2016, *"Magmatic and hydrothermal processes operating beneath a fast-spreading center: Insights from multi channel seismic dataset collected along the East Pacific Rise",* Ifremer, France

March, 2016, *"Signatures of melt distribution along the East Pacific Rise",* Kobe University, Kobe, Japan

March, 2016, *"Signatures of melt distribution along the East Pacific Rise"*, JAMSTEC, Yokohama, Japan

March, 2016, *"Signatures of melt distribution along the East Pacific Rise"*, Seoul National University, Seoul, South Korea

May, 2014, *"Signatures of present melt distribution at fast spreading centers",* GEOMAR seminar, Kiel, Germany.

February, 2014, *"Signatures of present melt distribution at fast spreading centers",* Seismology Geoscience seminar at IPGP, Paris, France (invited).

November, 2013, *"Signatures of melt distribution at fast spreading centers",* Observatoire Midi-Pyrénées, Toulouse, France (invited).

October, 2013, "*Signatures of present melt distribution at fast spreading centers",* Marine Geoscience seminar at IPGP, Paris, France (invited).

November, 2012, *"Distribution of melt at the East Pacific Rise 9°50'N from an amplitude variation with angle of incidence (AVA) technique"*, Geophysics seminar at Dalhousie University, Halifax, Canada (invited).

August, 2010, *"Gravity and seismic study of crustal structure along the Juan de Fuca Ridge axis and across pseudofaults on the ridge flanks"*, ExxonMobil Exploration Group in Houston, Texas, USA.

August, 2010, *"Gravity and seismic study of crustal structure along the Juan de Fuca Ridge axis and across pseudofaults on the ridge flanks",* ExxonMobil Upstream Research Group in Houston, Texas, USA.

April, 2010, *"Gravity and seismic study of crustal structure along the Juan de Fuca Ridge axis and across pseudofaults on the ridge flanks"*, Marine Geology and Geophysics Seminar, Lamont-Doherty Earth Observatory, New York, NY, USA.

• CONTRIBUTIONS

Discussion Moderator Co-Chair for Women in Geosciences and Engineering EAGE

Fête de la science - designing a project and demonstration in French

Fête des idées - exposition of photos taken during field work

Talk at the French Marie Curie Alumni meeting on gender equality in science

• HOBBIES

Foreign languages – English - native, Spanish - native, French - advanced, Italian - intermediate, Russian - writing skills, Japanese, basic – level N5-N4 in Japanese system of evaluation. Serbian is my mother tongue language.

Photography