

# CURRICULUM VITAE

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### Educational background

- 2000 • Ph.D. degree, October 6<sup>th</sup>, 2000, *University of Toronto*, Department of Physics, Geophysics Division, Toronto, Ontario, Canada. Thesis title: “Seismic Reflection Imaging in Crystalline Terrains”.
- 1994 • M.Sc. degree, September 30<sup>th</sup>, 1994, *University of Toronto*, Department of Physics, Geophysics Division, Toronto, Ontario, Canada. Title of the report: “Reprocessing of Crustal Seismic Reflection Data from the Abitibi Greenstone Belt”.
- 1991 • B.Sc. degree, May 16<sup>th</sup>, 1991, *University of Belgrade*, Faculty of Mining and Geology, Department of Geology, Geophysics Division, Belgrade, Yugoslavia. Thesis title: “Analysis of the Effect of a Seismic Model on Earthquake Hypocenter Parameters in the Region of Serbia”.

### Awards and distinctions

- 2019 • Texas A&M University, College Station, USA - Halbouty Visiting Chair.
- 2016 • Institute for Geophysics and Planetary Physics, La Jolla, USA - Green Scholar.
- 2014 • Centre National de la Recherche Scientifique, Nice, France - Invited Researcher.
- 2013 • Ecole Normale Supérieure, Paris, France - Invited Professor.
- 2012 & 2018 • Observatoire de la Cote d’Azur, Nice, France - Invited Professor.
- 2006-2016 • Canada Research Chair in Geophysics and Petroleum Exploration.
- 2000-2002 • Canadian Government Laboratory Visiting Fellow.
- 1997 • Hart House Film Board Production and Post Production Grants.
- 1995 & 1997 • Canadian Society of Exploration Geophysicists Scholarship.
- 1995-1998 • University of Toronto Open Doctoral Fellowship.
- 1994-1995 • Ontario Graduate Scholarship.
- 1992-1993 • State Oil & Gas Company of Yugoslavia Graduate Scholarship.

## Work experience

- Date • From July 1<sup>st</sup>, 2015 to present.  
Employer • Dept. of Earth Sciences at Dalhousie University, Halifax, Nova Scotia, Canada.  
Position • Full Professor.
- Date • From Aug. 1<sup>st</sup>, 2008 to Aug. 1<sup>st</sup>, 2010, and from Aug. 15<sup>th</sup>, 2014 to present.  
Employer • Dept. of Earth Sciences at Dalhousie University, Halifax, Nova Scotia, Canada.  
Position • Associate Chair.
- Date • From Jan. 1<sup>st</sup>, 2014 to present.  
Employer • University of Texas Institute for Geophysics, Austin, USA.  
Position • Senior Research Fellow.
- Date • From Aug. 1<sup>st</sup>, 2006 to present.  
Employer • Lamont-Doherty Earth Observatory of Columbia University, New York, USA.  
Position • Adjunct Senior Research Scientist at the Lamont-Doherty Earth Observatory of Columbia University.
- Date • From Aug. 1<sup>st</sup>, 2006 to July 31<sup>st</sup>, 2016.  
Employer • Dept. of Earth Sciences at Dalhousie University, Halifax, Nova Scotia, Canada.  
Position • Canada Research Chair in Geophysics.
- Date • From Jul. 1<sup>st</sup>, 2015 to Dec. 31<sup>st</sup>, 2015.  
Employer • Dept. of Earth Sciences at Dalhousie University, Halifax, Nova Scotia, Canada.  
Position • Acting Chair.
- Date • From Aug. 1<sup>st</sup>, 2006 to July 1<sup>st</sup>, 2015.  
Employer • Dept. of Earth Sciences at Dalhousie University, Halifax, Nova Scotia, Canada.  
Position • Associate Professor.
- Interests • Rifting and drifting; oceanic crustal accretion, structure and evolution; subduction zone processes, megathrust earthquakes, and aseismic slip events; hydration/dehydration of oceanic plates and intraslab earthquakes; seismic imaging methodology; petroleum exploration at rifted margins; seismic oceanography; coastal effects of climate change, etc.
- Date • From August 1<sup>st</sup>, 2004 to July 31<sup>st</sup>, 2006.  
Employer • Lamont-Doherty Earth Observatory of Columbia University, New York, USA.  
Position • Doherty Associate Research Scientist.  
Interests • Oceanic crustal structure and evolution; past climate record based on passive margin sedimentary record; subduction zone processes, megathrust earthquakes, and aseismic slip events; hydration/dehydration of oceanic plates and intraslab earthquakes, seismic imaging methodology, etc.
- Date • From July 28<sup>th</sup>, 2002, to July 31<sup>st</sup>, 2004.  
Employer • Lamont-Doherty Earth Observatory of Columbia University, New York, USA.  
Position • Post Doctoral Research Scientist.  
Duties • Structural studies of the Southeast Indian and Juan de Fuca mid-ocean ridges from seismic reflection and other data.

Date • From October 7<sup>th</sup>, 2000, to July 27<sup>th</sup>, 2002.  
Employer • Geological Survey of Canada - Pacific, Natural Resources Canada.  
Position • Visiting Fellow.  
Duties • Structural studies of the northern Cascadia and eastern Nankai subduction zones from seismic reflection, seismic tomography and seismicity data.

Date • From October 10<sup>th</sup>, 1991, to January 15<sup>th</sup>, 1993.  
Employer • NIS-NAFTAGAS, Geophysical Institute, Belgrade, Yugoslavia.  
Position • Geophysicist.  
Duties • Acquired and processed 2D & 3D seismic reflection data for oil and gas exploration. Acquired, processed and interpreted shallow refraction data.

Date • Summers of 1986-1990.  
Employer • D.Sc. Obrad Milošević, University of Belgrade, Belgrade, Yugoslavia.  
Position • Research assistant at the Geophysics Laboratory.  
Duties • Prepared labs for experimental training of students.

## Fieldwork

Date • May - July, 2014 and 2015.  
Employer • University of Texas at Austin.  
Position • Co-chief scientist. Project NJ3D. 3D multichannel seismic imaging of the clinofold geometry offshore New Jersey. Cruises MGL1405 and MGL1510 on *R/V Marcus G. Langseth*.  
Duties • In charge of the survey together with other co-PIs.

Date • June - July, 2012.  
Employer • Columbia University.  
Position • Co-chief scientist. Project Ridge2trench. 2D multichannel seismic and ocean bottom seismometer survey of the Juan de Fuca plate from ridge to trench. Cruises MGL1210 on *R/V Marcus G. Langseth* & OC1206A on *R/V Oceanus*.  
Duties • In charge of the survey together with other co-PIs.

Date • June - August, 2011.  
Employer • Columbia University.  
Position • Co-chief scientist. Project ALEUT. 2D multichannel seismic and ocean bottom seismometer survey of the Alaska subduction zone from the SW end of Kodiak Island to Shumagin Islands. Cruise MGL1110 on *R/V Marcus G. Langseth*.  
Duties • In charge of the survey together with other co-PIs.

Date • November, 2010.  
Employer • Dalhousie University.  
Position • Chief scientist. Project OCTOPUS. 2D ocean bottom seismic survey of the the north-central Scotian margin. On *R/V Strait Explorer*.  
Duties • In charge of the survey.

Date • September-October, 2010.

- Employer • Dalhousie University.  
 Position • Co-chief scientist. Project OBWAVE. 2D ocean bottom seismometer survey of the Orphan Basin. On *R/V Strait Explorer*.  
 Duties • In charge of the survey together with other co-PIs.
- Date • June-August, 2008.  
 Employer • Columbia University.  
 Position • Co-chief scientist. Project EPR 3D. 3D multichannel seismic survey of the East Pacific Rise at 9°50'N. First academic 3D MCS cruise with multiple source & receiver arrays. Cruise MGL0812 on *R/V Marcus G. Langseth*.  
 Duties • In charge of the survey together with other co-PIs.
- Date • July, 2007.  
 Employer • Dalhousie University.  
 Position • Co-chief scientist. Project ROSE - Reflection Ocean Seismic Experiment. Hydrographic survey of the Gulf Stream offshore Nova Scotia, Canada, coincident with parts of the UNCLOS MCS survey. Cruise EN438 on *R/V Endeavour*. Groundtruthing seismic oceanography.  
 Duties • Designed and carried out XBT and CTD surveys.
- Date • November, 2006.  
 Employer • Columbia University.  
 Position • Lead geophysicist. GPS study of current deformation across Calabria, S. Italy.  
 Duties • Installation of a GPS profile of nine permanent stations.
- Date • July and August, 2002.  
 Employer • Columbia University.  
 Position • Acquisition geophysicist. Multichannel seismic survey EW0207 on *R/V Maurice Ewing*. Juan de Fuca ridge and its flanks. Structure and evolution of intermediate-spreading Juan de Fuca ridge and its flanks.  
 Duties • Controlled data quality and produced initial seismic sections.
- Date • August, 2001.  
 Employer • Geological Survey of Canada.  
 Position • Acquisition geophysicist. High-resolution seismic reflection survey. Accretionary prism offshore Vancouver Island. Exploration for gas hydrates.  
 Duties • Controlled data quality and produced initial seismic sections.
- Date • November, 1997.  
 Employer • Geological Survey of Canada.  
 Position • Acquisition geophysicist. Crustal scale seismic reflection survey. NW Ontario, Canada. Western Superior transect, Lithoprobe Project.  
 Duties • Controlled quality of data acquired by the contracted company.
- Date • July, 1997.  
 Employer • University of Toronto.

- Position • Acquisition geophysicist. Marine transient EM and compliance surveys. Continental shelf by the Vancouver Island. Exploration for methane hydrates.
- Duties • Controlled data quality during the acquisition.
- Date • December, 1996.
- Employer • University of Toronto.
- Position • Acquisition geophysicist. Small scale 3D resistivity and IP survey. Fort York, Toronto, Canada. Geophysical applications in archeology.
- Duties • Laid-out, checked and picked-up instrumentation.
- Date • July, 1996.
- Employer • Geological Survey of Canada.
- Position • Acquisition geophysicist. Crustal scale seismic refraction experiment. Western Superior transect. Lithoprobe Project.
- Duties • Laid-out, checked and picked-up instrumentation by land and air.
- Date • December, 1994.
- Employer • University of Toronto.
- Position • Acquisition geophysicist. Engineering scale 3D seismic reflection survey. East of Toronto in Durham Region.
- Duties • Laid-out, checked and picked-up instrumentation.
- Date • October, 1991 - January, 1993.
- Employer • Geophysical Institute, NIS-NAFTAGAS.
- Position • Acquisition geophysicist. Numerous 2D and 3D seismic reflection surveys in the southeastern Panonian Basin.
- Duties • Designed surveys and supervised data collection.

## Teaching experience

- Date • Fall session 2014.
- Employer • Department of Earth Sciences, Dalhousie University.
- Position • Lecturer for graduate course Special Research Topics: Late Quaternary Geology of the Southern Beaufort Sea. (*Co-developed course.*)
- Duties • Assignment and evaluation of bi-monthly student presentations based on sections of textbooks and journal publications.
- Date • Winter sessions 2009-2012.
- Employer • Department of Earth Sciences, Dalhousie University.
- Position • Lecturer for undergraduate/graduate course “Advanced Seismic Imaging”. (*Co-developed course.*)
- Duties • One 1 hour lecture and 3 hour lab every week. Evaluated lab assignments.
- Date • Fall session 2010; Winter sessions 2014-2018.
- Employer • Department of Earth Sciences, Dalhousie University.
- Position • Lecturer for undergraduate/graduate course “Introduction to Seismic Imaging”. (*Co-developed course.*)
- Duties • One 1 hour lecture and 3 hour lab every week. Evaluated lab assignments.

- Date • Fall and Winter sessions 2007-2012, 2016-2018.  
Employer • Department of Earth Sciences, Dalhousie University.  
Position • Lecturer for graduate course “Research Design and Scientific Presentation”.  
Duties • One 4 hour lecture every other week. Guided graduate students to develop thesis proposals and presentations.
- Date • Winter sessions 2007-2012; 2014, 2017-2018.  
Employer • Department of Earth Sciences, Dalhousie University.  
Position • Lecturer for course “Introduction to Applied Geophysics”. (*Developed course.*)  
Duties • Three lectures & one tutorial/lab per week. Three/Four day field camp at the end of semester. Evaluated lab and field work, and mid-term and final exams.
- Date • Winter sessions 1998-1999 and 1999-2000.  
Employer • Department of Physics, University of Toronto.  
Position • Lab demonstrator and teaching assistant for the engineering and physics courses “Shallow Crust Geophysics”, “Experimental Applied Geophysics”, “Introduction to Archaeometry”, and “Physics and Archeology”.  
Duties • Two lab periods per week. Evaluated lab work, lab write-ups, and oral exams.
- Date • Winter sessions from 1993 to 2000, and summer sessions 1995-97 and 1999.  
Employer • Department of Physics, University of Toronto.  
Position • Lab demonstrator for first year physics courses.  
Duties • Two lab periods per week. Evaluated lab work, lab write-ups, formal reports and written exams.

## Refereed publications

Summary: 10 in *Nature* journals, 4? in *Geology*, 9 in *J. Geophys. Res.*, 6 in *G-cubed*, 4 in *Earth Planet. Sci. Lett.*, 4 in *Geophysics*, 2 in *Geophys. J. Int.*, 2 in *Geophys. Res. Lett.*, etc.

### In late stages of preparation

- 2018\* [58] Kuehn, H., Nedimović, M. R., Shillington, D. J., Bécel, A., Delescluse, Loudon, K. E., Webb, S. C., Megathrust segmentation due to interplate interface geometry, to be submitted to *Science/Nature* in February 2018.
- 2018 [57] Nedimović, M. R., Aghaei, O., Carbotte, S. M. and Canales, J. P., Moho formation at zero-age oceanic crust, to be submitted to *Science/Nature* in January 2018.
- 2018\* [56] Marjanović, M., Carbotte, S. M., Nedimović, M. R., Carton, H. and Canales, J. P., Segmentation of the crustal magmatic system beneath the East Pacific Rise 8°20' to 10°10'N, to be submitted to *J. Geophys. Res. Solid Earth* in March 2018.

### Submitted or in revision

- 2018\* [55] Lau, K. W. H., Nedimović, M. R. and Loudon, K. E., Continent-ocean transition across the northeastern Nova Scotian margin from a dense wide-angle seismic profile, Submitted to *J. Geophys. Res. Solid Earth* in November 2017.

- 2018\* [54] Han, S., Carbotte, S. M., Canales, J. P., Nedimović, M. R. and Carton, H. M., Along-Trench Structural Variations of the Subducting Juan de Fuca Plate from Multichannel Seismic Reflection Imaging, First revision submitted to *J. Geophys. Res. Solid Earth* in January 2018.
- 2018\* [53] Li, J., Shillington, D. J., Saffer, D. M., Bécel, A., Nedimović, M. R., Kuehn, H., Webb, S. C., Abers, G. A. and Keranen, K. M., Connections between subducted sediment, pore-fluid pressure, and earthquake behavior along the Alaska megathrust, Second revision submitted to *Geology* in December 2017.

### Published or in press

- 2017 [52] Canales, J. P., Carbotte, S. M., Nedimović, M. R. and Carton, H., The water content of the Juan de Fuca plate entering the Cascadia subduction zone, *Nat. Geosci.*, Vol 10, doi:10.1038/ngeo3050, 864-870.
- 2017\* [51] \*Bécel, A., Shillington, D. J., Delescluse, M., Nedimović, M. R., Abers, G. A., Saffer, D. M., Webb, S. C., Keranen, K. M., Roche, P.-H., Li, J. and Kuehn, H., Imaging of tsunamigenic structures in a creeping section of the Alaska subduction zone, *Nat. Geosci.*, Vol. 10, doi:10.1038/ngeo2990, 609-613.
- 2017\* Editor's Highlight [50] Aghaei, O., Nedimović, M. R., Marjanović, M., Carbotte, S. M., Canales, J. P., Carton, H. and Nikić, N. (2017), Constraints on melt content of off-axis magma lenses at the East Pacific Rise from analysis of 3-D seismic amplitude variation with angle of incidence, *J. Geophys. Res. Solid Earth*, Vol. 121, doi:10.1002/2016JB013785, 1-20.
- 2016 [49] Horning, G., Canales, J. P., Carbotte, S. M., Han, S., Carton, H. and Nedimović, M. R., A 2-D tomographic model of the Juan de Fuca plate from accretion at Axial Seamount to Subduction at the Cascadia margin from an active source OBS survey, *J. Geophys. Res. Solid Earth*, Vol. 121, No. 8, DOI: 10.1002/2016JB013228, 5859-5879.
- 2016 [48] Nedimović, M. R., Plate tectonics: Delayed response to mantle pull, *Nat. Geosci.*, Vol. 9, No. 8, doi:10.1038/ngeo2746, 571-572.
- 2016\* [47] Han, S., Carbotte, S. M., Canales, J. P., Nedimović, M. R., Carton, H., Gibson, J. C. and Horning, G., Seismic reflection imaging of the Juan de Fuca plate from ridge to trench: New constraints on the distribution of faulting and evolution of the crust prior to subduction, *J. Geophys. Res. Solid Earth*, Vol. 121, No. 3, DOI: 10.1002/2015JB012416, 1849-1872.
- 2016\* [46] Forde, T. C., Nedimović, M. R., Gibling, M. R. and Forbes, D. L., Coastal evolution over the past 3000 years at Conrads Beach, Nova Scotia: the influence of local sediment supply on a transgressive system, *Estuaries and Coasts*, Vol. 39, No. 2, DOI 10.1007/s12237-015-0016-6, 363-384.
- 2016\* [45] Biescas, B., Ruddick, B., Kormann, J., Sallares, V., Nedimović, M. R. and Carniel, S., Synthetic modeling for an acoustic exploration system for physical oceanography, *Journal of Marine Systems*, Vol. 33, DOI: 10.1175/JTECH-D-15-0137.1, 191-200.

- 2015\* [44] Li, J., Shillington, D. J., Bécel, A., Nedimović, M. R., Webb, S. C., Abers, G. A., Keranen, K. M. and Kuehn, H., Downtip variations in seismic reflection character: Implications for fault structure and seismogenic behavior in the Alaska subduction zone, *J. Geophys. Res. Solid Earth*, Vol. 120, 10.1002/2015JB012338, 7883-7904.
- 2015 [43] Shillington, J., Bécel, A., Nedimović, M. R., Kuehn, H., Webb, S. C., Abers, G. A., Keranen, K. M., Li, J., Delescluse, M. and Mattei-Salicrup, G. A., Controls on abrupt changes in faulting, hydration and seismicity in the Alaska subduction zone, *Nat. Geosci.*, Vol. 8, DOI: 10.1038/NGEO2586, 961-965.
- 2015\* [42] Marjanović, M., Carton, H., Carbotte, S. M., Nedimović, M. R., Mutter, J. C. and Canales, J. P., Distribution of melt along the East Pacific Rise from 9°30' to 10°N from an amplitude variation with angle of incidence (AVA) technique, *Geophys. J. Int.* Vol. 203, doi: 10.1093/gji/ggv251, 1-21.
- 2015\* [41] Lau, H., Watremez, L., Loudon, K. E. and Nedimović, M. R., Structure of thinned continental crust across the Orphan Basin from a dense wide-angle seismic profile, *Geophys. J. Int.*, Vol. 202, doi: 10.1093/gji/ggv261, 1969-1992.
- 2015\* [40] Bécel, A., Shillington, D. J., Nedimović, M. R., Webb, S. C. and Kuehn, H., Origin of dipping reflections in the lower crust formed at fast-to-intermediate spreading rates, *Earth Planet. Sci. Lett.*, Vol. 424, <http://dx.doi.org/10.1016/j.epsl.2015.05.016>, 2637.
- 2015\* [39] Watremez, L., Lau, H., Nedimović, M. R. and Loudon, K. E., Traveltime tomography of a dense wide-angle profile across Orphan Basin, *Geophysics*, Vol. 80, No. 3, doi:10.1190/GEO2014-0377.1, B69-B82.
- 2014\* [38] Marjanović, M., Carbotte, S. M., Carton, H., Nedimović, M. R., Mutter, J. C. and Canales, J. P., A multi-sill magma plumbing system beneath the axis of the East Pacific Rise, *Nat. Geosci.*, Vol. 7, doi:10.1038/NGEO2272, 825-829.
- 2014 [37] Arnulf, A., Harding, A., Kent, G., Carbotte, S. M., Canales, J. P., Nedimović, M. R., Anatomy of an active submarine volcano, *Geology*, Vol. 48, No. 8, doi:10.1130/G35629.1, 655-658.
- 2014\* [36] Biescas, B., Ruddick, B., Nedimović, M. R., Sallarès, V., Bornstein, G. and Mojica, J., Recovery of temperature, salinity and potential density from ocean reflectivity, *J. Geophys. Res. Oceans*, Vol. 119, doi:10.1002/2013JC009662, 3171-3184.
- 2014 [35] Xu, M., Canales, J. P., Carbotte, S. M., Carton, H., Nedimović, M. R. and Mutter, J. C., Variations in axial magma lens properties along the East Pacific Rise (9°30'-10°00') from swath 3D seismic imaging and 1D waveform inversion, *J. Geophys. Res. Solid Earth*, Vol. 119, doi:10.1002/2013JB010730, 2721-2744.
- 2014\* [34] Aghaei, O., Nedimović, M. R., Carton, H., Canales, J. P., Carbotte, S. M. and Mutter, J. C., Crustal thickness and Moho character of the fast-spreading East Pacific Rise from 9°42'-57'N from poststack-migrated 3D MCS data, *Geochem. Geophys. Geosyst.*, Vol. 15, doi:10.1002/2013GC005069, 634-657.



- 2014\* [33] Han, S., Carbotte, S. M., Carton, M., Mutter, J. C., Aghaei, O., Nedimović, M. R. and Canales, J. P., Architecture of off-axis magma bodies at EPR 9°37'-40'N and implications for oceanic crustal accretion, *Earth Planet. Sci. Lett.*, Vol. 390, <http://dx.doi.org/10.1016/j.epsl.2013.12.040>, 31-44.
- 2013 [32] Carbotte, S. M., Marjanović, M., Carton, H., Mutter, J. C., Canales, J. P., Nedimović, M. R., Han, S. and Perfit, M. R., Fine-scale segmentation of the crustal magma reservoir beneath the East Pacific Rise, *Nat. Geosci.* Vol. 6, doi:10.1038/NGEO1933, 866-870.
- 2012\* [31] Gerlings, J., Louden, K. E., Minshull, T. A. and Nedimović, M. R., The Flemish Cap - Goban Spur conjugate margins: New evidence of asymmetry, *Geology*, Vol. 40, doi:10.1130/G33263.1, 1107-1110.
- 2012 [30] Canales, J. P., Carton, H., Mutter, J. C., Harding, A., Carbotte, S. M. and Nedimović, M. R., Recent advances in multichannel seismic imaging for academic research in deep oceanic environments, *Oceanography*, Vol. 25, No. 1, <http://dx.doi.org/10.5670/oceanog.2012.09>, 113-115.
- 2012 [29] Carbotte, S. M., Canales, J. P., Nedimović, M. R., Carton, H. and Mutter, J. C., Recent seismic studies at the East Pacific Rise 8°20'-10°10'N and Endeavour Segment: Insights into mid-ocean ridge hydrothermal and magmatic processes, *Oceanography*, Vol. 25, No. 1, <http://dx.doi.org/10.5670/oceanog.2012.08>, 100-112.
- 2012 [28] Canales, J. P., Carton, H., Carbotte, S. M., Mutter, J. C., Nedimović, M. R., Hu, M., Aghaei, O., Marjanović, M. and Newman, K. R., Network of off-axis melt bodies at the East Pacific Rise, *Nat. Geosci.*, Vol. 5., DOI: 10.1038/NGEO1377, 279-283.
- 2011 [27] D'Agostino, N., D'Anastasio, E., Gervasi, A., Guerra, I., Nedimović, M. R., Seeber, L. and Steckler, M., Forearc extension and slow rollback of the Calabrian Arc from GPS measurements, *Geophys. Res. Lett.*, Vol. 38, L17304, doi:10.1029/2011GL048270, 1-6.
- 2011\* [26] Marjanović, M., Carbotte, S. M., Nedimović, M. R. and Canales, J. P., Gravity and seismic study of crustal structure along the Juan de Fuca Ridge axis and across pseudofaults on the ridge flanks, *Geochem. Geophys. Geosyst.*, Vol. 12, No. 5, Q05008, doi:10.1029/2010GC003439, 1-22.
- 2011\* [25] Newman, K. R., Nedimović, M. R., Canales, J. P. and Carbotte, S. M., Evolution of seismic layer 2B across the Juan de Fuca Ridge from hydrophone streamer 2D travelttime tomography, *Geochem. Geophys. Geosyst.*, Vol. 12, No. 5, Q05009, doi:10.1029/2010GC003462, 1-24.
- 2011\* [24] Delescluse, M., Nedimović, M. R. and Louden, K. E., 2D waveform tomography applied to long-streamer MCS data from the Scotian slope, *Geophysics*, Vol. 76, No. 4, doi:10.1190/1.3587219, B151-B163.
- 2010\* [23] Mirshak, R., Nedimović, M. R., Greenan, B. J. W., Ruddick, B. R. and Louden, K. E., Coincident reflection images of the Gulf Stream from seismic and hydrographic data, *Geophys. Res. Lett.*, Vol. 37, L05602, doi:10.1029/2009GL042359, 1-5.

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- 2009 [20] Canales, J. P., Nedimović, M. R., Kent, G. M., Carbotte, S. M. and Detrick, R. S., Seismic reflection images of a near-axis melt sill within the lower crust at the Juan de Fuca Ridge, *Nature*, Vol. 460, doi:10.1038/nature08095, 89-93.
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- 2008 [17] Carbotte, S. M., Nedimović, M. R., Canales, J. P., Kent, G. M., Harding, A. J. and Marjanovic, M., Variable crustal structure along the Juan de Fuca Ridge; influence of on-axis hotspots and absolute plate motions, *Geochem. Geophys. Geosyst.*, Vol. 9, No. 8, Q08001, doi:10.1029/2007GC001922, 1-23.
- 2007 [16] van Ark, E. M., Detrick, R. S., Canales, J. P., Carbotte, S. M., Harding, A. J., Kent, G. M., Nedimović, M. R., Wilcock, W. S. D., Diebold, J. B. and Babcock, J. M., Seismic structure of the Endeavour segment, Juan de Fuca ridge: Correlations with seismicity and hydrothermal activity, *J. Geophys. Res. Solid Earth*, Vol. 112, B02401, doi:10.1029/2005JB004210, 1-22.
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**Note:** • **Electronic versions of all publications are available upon request. Star (\*) indicates work by a graduate student or a postdoc supervised/co-supervised by Nedimović.**

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Invited [179] Nedimović, M. R., Science targets for offshore geophysical instrumentation in western Canada, A GeoPRISMS Pre-AGU Mini-workshop: Investigating the Western Canada plate boundary with a large-scale Canadian Cordillera Seismic Array and GPS network (CCArray), 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
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- 2003 [22] Nedimović, M. R., Hyndman, R. D., Ramachandran, K., Spence G. D. and Invited Brocher, T. M., Reflection signature of seismic and aseismic slip, Geological Society of America Annual Meeting, Abstract Volume, 127-6.
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- 2003 [18] Baran, J., Cochran, J. R., Carbotte, S. M. and Nedimović, M. R., Relationship between axial morphology and axial magma chamber distribution along the Southeast Indian ridge, Summer school on Tectonic-Magmatic Interaction, Nordic Volcanological Institute report 0303, 5-6.
- 2003 [17] Nedimović, M. R., Bohnenstiehl, D. R., and Carbotte, S. M., Monitoring microseismicity, Workshop on Linkages Between the Ocean Observatories Initiative and Integrated Ocean Drilling Program report, 41-43, Washington University.
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- 2002 [13] Nedimović, M. R., Ramachandran, K., Hyndman, R. D., Deep structure of the northern Cascadia subduction zone from reflection, tomography and seismicity studies, *EOS Trans. AGU* 83(47), Fall Meet. Suppl., 1252.
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- 2002 [8] Nedimović, M. R. and Mazzotti, S., Crossdip moveout in feathered 2D marine studies, 28<sup>th</sup> Annual Meeting of the Canadian Geophysical Union, Abstract Volume.
- 2001 [7] Nedimović, M. R., Mazzotti, S. and Hyndman, R. D., Extracting 3D structure from 2D marine multichannel seismic reflection data collected over the Eastern Nankai Trough, *EOS Trans. AGU* 82(47), Fall Meet. Suppl., p. 1220.
- 2000 [6] Nedimović, M. R. and West, G. F., Migrating 2D crooked line seismic reflection data from crystalline geological terrain, 70<sup>th</sup> Annual International Meeting of the Society of Exploration Geophysicists, Expanded Abstracts, 894-897.
- 1999 [5] Nedimović, M. R. and West, G. F., Processing seismic reflection data from high fold, crooked line surveys in crystalline geological terrain, 69<sup>th</sup> Annual International Meeting of the Society of Exploration Geophysicists, Expanded Abstracts, 1437-1440.
- 1998 [4] Nedimović, M. R., Wang, W. and West, G. F., Focusing problems in reflection imaging of the crust, 8<sup>th</sup> International Symposium on Deep Seismic Profiling of Continents and their Margins, Abstract Volume, 42.

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- 1997 [2] Nedimović, M. R. and West, G. F., Losing signal by doing and undoing NMO?, *LSPF Newsletter*, **10**, 21-23.
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**Note:** • **Electronic versions of all abstracts are available upon request. Star (\*) indicates work by a graduate student or a postdoc supervised by Nedimović.**

## Funding

Summary: ~\$50M since 2004; >\$25M from Canadian sources since 2006, with ~\$20M or 80% as PI; >\$22M from international sources, mostly as co-PI after moving to Canada in 2006.

- 2019-2020 [41] Nedimović, M. R. (PI); Awarded by Texas A&M University; Total amount: \$100,000; Title: “Halbouty Visiting Chair”.
- 2018-2023 [40] Nedimović, M. R. (PI) and 9 Canadian co-PIs; Awarded by the Canadian Foundation for Innovation and six provincial matching-funds institutions; Total amount (includes CFI component, provincial matching funds, in-kind and IOF Operating and Maintenance Funds: \$16,788,874; Title: “National Facility for Seismic Imaging”.
- 2018-2021 [39] Nedimović, M. R. (PI) and John C. Gosse (co-PI); Awarded by the MEOPAR (Marine Environmental Observation Prediction and Response) Network; Total amount: \$399,000; Title: “ARCTIC Ulliniq (Underwater Listening Network for Novel Investigations of Quakes)”.
- 2018-2020 [38] Nedimović, M. R. (PI) and Canales, J. P. (co-PI); 2-year Dal-WHOI PDF for Dr. Hanchao Jian awarded by the Ocean Frontiers Institute; Amount \$150,000 (Lamont part); Title: “Origin of the major margin-parallel change in seafloor morphology offshore central Nova Scotia and its implications on marine safety and shifting ecosystems”.
- 2017-2018 [37] Nedimović, M. R. (PI); Awarded by the Offshore Energy Research Association of Nova Scotia; Amount \$100,000; Title: “Integrated analyses of the OETR - MIRROR pair of Nova Scotia - Morocco conjugate margins dense OBS data sets supported by coincident reflection profiles”.
- 2017-2018 [36] Nedimović, M. R. (PI); Awarded by the Institute for Geophysics and Planetary Physics, La Jolla, USA; Amount \$20,000; Title: “Integrated analyses of the OETR - MIRROR pair of Nova Scotia - Morocco conjugate margins dense OBS data sets supported by coincident reflection profiles”.

- 2017 [35] Nedimović, M. R. (PI); Awarded by Shell Experimental Learning Fund (SELF); Amount \$2,244; Title: “Predicting sedimentary properties by integration of rock physics modeling and quantitative seismic interpretation to study global sea-level changes offshore New Jersey”; Funding for a field trip for one graduate student, Masoud Aali.
- 2017-2020 [34] Carbotte, S. M. (PI), Nedimović, M. R. and Carton, H. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-16-57737; Amount \$155,245 (Lamont part); Title: “Collaborative Research: Inferences on Cascadia Deformation Front and Plate Interface Properties from Advanced Studies of Active Source Seismic Data”.
- 2016-2018 [33] Perosi F. (PI) and Nedimović, M. R. (co-PI); Awarded by the CNPq -Conselho Nacional de Desenvolvimento Científico e Tecnológico, Ministry of Science, Technology and Innovation of Brazil; Amount \$80,000 (40,000 per year); Title: “Analysis, processing and interpretation of high-resolution seismic data (OBS and MCS) for an improved understanding of passive continental margins”.
- 2015-2017 [32] Nedimović, M. R. (PI); Awarded by the Offshore Energy Research Association of Nova Scotia; Amount \$200,000 (100,000 per year); Title: “Extensional tectonics across the northern Nova Scotia margin from ocean bottom seismic data”.
- 2014-2020 [31] Nedimović, M. R. (PI); Awarded by the Natural Sciences and Engineering Research Council of Canada Discovery Program; Amount \$312,000 (52,000 per year); Title: “Seismic study of subduction zones, rifted margins and mid-ocean ridges”.
- 2014-2016 [30] Shillington, D. J. (PI), Nedimović, M. R. and Bécel, A. (co-PIs); Awarded by the United States National Science Foundation; Award Number EAR-1347312; Amount \$268,709 (Lamont part); Title: ‘Collaborative Research: The Aleutian megathrust from trench to base of the seismogenic zone; integration and synthesis of laboratory, geophysical and geological data’.
- 2014-2016 [29] Fulthorpe, C. (PI), Nedimović, M. R. and Austin, J. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-12-59487; Amount \$226,155 (Lamont part); Title: “Collaborative research: Community-based 3D imaging that ties clinoform geometry to facies successions and Neogene sea-level change”. Estimated cost of data acquisition is ~\$2,000,000.
- 2014-17 [28] Cannat, M., Singh, S., Escartin, J., Crawford, W., Leroy, S., d’Ácremont, E., Sauter, D., Manatschal, G., Autin, J., Nedimović, M. R., Watremez, L. and Loudon, K. E. (PIs); Awarded by Flotte Oceanographique Francaise; Amount 36 days of ship time on *R/V Marion Dufresne*; Title: “SEISMO-SMOOTH: 2D and 3D MCS and OBS characterization of exhumed ultramafic seafloor across the SW Indian Ridge”. Estimated cost of data acquisition is ~2,000,000 euros.
- 2013-2019 [27] Wallace, D. (PI) and many co-PIs including Nedimović, M. R. (co-PI from 2015); Awarded by the NSERC CREATE program; Amount \$1,650,000; Title: “Transatlantic Ocean System Science and Technology (TOSST)”.



- 2013 [26] Louden, K. E. and Nedimović, M. R. (PIs); NSERC Discovery - Ship Time Grant; Amount \$137,380; Title: “Seismic characterization of exhumed ultramafic seafloor on the SW Indian Ridge”; Partial support for ship time on *R/V Marion Dufresne*, the French ship that will be used for data acquisition in winter 2014 (see funding 26).
- 2012-2015 [25] Carbotte, S. M. (PI), Nedimović, M. R. and Carton, H. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-10-29411; Amount \$599,376 (Lamont part); Title: “Collaborative research: Evolution and hydration of the Juan de Fuca crust and uppermost mantle: a plate-scale seismic investigation from ridge to trench”. Estimated cost of data acquisition is ~\$2,000,000.
- 2011-2016 [24] Nedimović, M. R. (PI); Awarded by the Canada Research Chair Program; Amount \$500,000 (100,000 per year); Chair Title: “Canada Research Chair in Geophysics”; Research Title: “Investigations of mid-ocean ridges, subduction zones and passive margins”.
- 2011 [23] Nedimović, M. R. and Louden, K. E. (PIs); Awarded by Shell Experimental Learning Fund (SELF); Amount \$9,600; Title: “Analysis of ALEUT longstreamer MCS data for determining Alaska megathrust earthquake hazards”; Funding for a part of the academic year for one graduate student, Harold Kuehn.
- 2011 [22] Nedimović, M. R. and Louden, K. E. (PIs); Awarded by Shell Experimental Learning Fund (SELF); Amount \$9,600; Title: “Structure of the continent-ocean transition in deep water region offshore Nova Scotia ”; Funding for one undergraduate summer student, Aaron Farkas.
- 2010-2013 [21] Louden, K. E. and Nedimović, M. R. (PIs); Awarded by ExxonMobil; Amount \$3,260,000; Title: “Orphan Basin wide angle ocean bottom seismic acquisition and data analysis”.
- 2010 [20] Gibling, M. R. and Nedimović, M. R. (PIs); Awarded by Shell Experimental Learning Fund (SELF); Amount \$14,000; Title: “History of coastal dunes in Nova Scotia and Prince Edward Island”; Funding for two undergraduate summer students, Darragh O’Connor and Peter Regan.
- 2010 [19] Louden, K. E. (PI), Nedimović, M. R. (co-PI); Awarded by the Offshore Energy Technical Research (OETR) Association; Amount \$91,000; Title: “Refraction crustal models and plate reconstruction”.
- 2010 [18] Louden, K. E. (PI) and Nedimović, M. R. (co-PI); Awarded by NSERC Discovery - Ship Time Grant; Amount \$212,475; Title: “Seismic and thermal measurements on the Nova Scotia slope”; Ten days of data acquisition summer 2010 using *CCGS Hudson*.
- 2010-2013 [17] Shillington, D. J. (PI), Nedimović, M. R., Webb, S. C. and Diebold, J. B. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-09-26614; Amount \$681,153; Title: “Megathrust seismic hazards by reflection mapping”. Estimated cost of data acquisition is ~\$2,500,000.

- 2009-2014 [16] Nedimović, M. R. (PI); Awarded by the Natural Sciences and Engineering Research Council of Canada Discovery Program; Amount \$200,000 (40,000 per year); Title: “Seismic imaging of mid-ocean ridges and passive margins”.
- 2009-2012 [15] Nedimović, M. R. (PI), Webb, S. C. and Diebold, J. B. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-06-23023; Amount \$636,499; Title: “Megathrust seismic hazards by reflection mapping”. Estimated cost of data acquisition for is ~\$2,500,000. NOTE: Due to ship unavailability NSF has “defunded” this project 25 months after we were informed that they plan to fund it.
- 2008 [14] Louden, K. E. (PI) and Nedimović, M. R. (co-PI); Awarded by NSERC Discovery - Ship Time Grant; Amount \$252,408; Title: “Seismic and thermal measurements on the Nova Scotia slope”; Eight days of data acquisition in July 2008 using *CCGS Hudson*.
- 2007 [13] Nedimović, M. R. and Adam, J. (PIs); Awarded by Shell Experimental Learning Fund (SELF); Amount \$16,000; Title: “Interaction of sedimentation and allochthonous salt canopy systems at the deepwater slopes of passive margins”; Funding for two undergraduate summer students, Eric Negulić and Matthew Kliffer.
- 2007-2010 [12] Louden, K. E. (PI), Nedimović, M. R. and Mukhopadhyay, P. K. (co-PIs); Awarded by the Offshore Energy Technical Research (OETR) Association; Amount \$300,000; Title: “Analysis of petroleum systems on the Scotian slope using thermal and seismic techniques”.
- 2007-2010 [11] Nedimović, M. R. (PI), Louden, K. E., Ruddick, B. R. and Enachescu, M. (co-PIs); Awarded by the Natural Sciences and Engineering Research Council of Canada; Award Number 342308/06; Amount \$489,465; Title: “Seismic imaging of the ocean and crust off eastern Canada”.
- 2007-2010 [10] Carbotte, S. M. (PI) and Nedimović, M. R. (co-PI); Awarded by the United States National Science Foundation; Award Number OCE-06-48303; Amount \$173,519 (Lamont part); Title: “Collaborative research: Seismic structure and evolution of oceanic crust along the Juan de Fuca ridge and its flanks”.
- 2006-2011 [9] Nedimović, M. R. (PI); Awarded by the Canada Research Chair Program; Amount \$500,000 (100,000 per year); Chair Title: “Canada Research Chair in Geophysics-Petroleum Exploration”; Research Title: ”Seismic hazards, paleoclimate reconstruction, and petroleum exploration”.
- 2006 [8] Nedimović, M. R. (PI); Awarded by the Canadian Foundation for Innovation and Nova Scotia Research and Innovation Trust; Amount \$312,500; Title: “Imaging, visualization and interpretation lab for seismic hazards, climate change, and petroleum exploration studies”.
- 2006-2009 [7] Nedimović, M. R. (PI); Awarded by the Natural Sciences and Engineering Research Council of Canada Discovery Program; Amount \$56,700 (18,900 per year); Title: “Subduction zone seismic hazards, oceanic crust evolution, and paleoclimate reconstruction”.

- 2006-2009 [6] Steckler, M. S. (PI), Finkel, R. C., Lavier, L. L., Malinverno, A., Nedimović, M. R., Schaefer, J. M., Seeber, L., Stark, C. P., Thompson, S. N. and Willet, S. D. (co-PIs); Awarded by the United States National Science Foundation; Amount \$2,200,000; Title: “Collaborative research: Uplift and faulting at the transition from subduction to collision - a field and modeling study of the Calabrian arc”.
- 2006-2008 [5] Nedimović, M. R. (PI); Awarded by the United States National Science Foundation; Award Number OCE-0624401; Amount \$168,972; Title: “Deep magmatic plumbing of the lower crust and uppermost mantle at the East Pacific Rise at 9<sup>o</sup>50’N by 3D multichannel seismics”; Cost of data acquisition ~\$4,000,000 USD.
- 2006-2009 [4] Nedimović, M. R. (PI), Webb, S. C. and Diebold, J. B. (co-PIs); Awarded by the United States National Science Foundation; Award Number OCE-04-52792; Amount \$611,391; Title: “Megathrust seismic hazards by reflection mapping”. Estimated cost of data acquisition is ~\$2,500,000. NOTE: Due to budget cuts NSF has “defunded” this project 10 months after we were informed that they plan to fund it.
- 2006-2009 [3] Nedimović, M. R. (PI) and Christie-Blick, N. (co-PI); Award Number OCE-04-53904; Amount \$319,649 (Lamont part); Title: “Collaborative research: 3D MCS imaging and waveform analysis of Miocene sequences offshore New Jersey”. In collaboration with Mountain, G. S. (PI) and Miller, K. G. (co-PI) from Rutgers University. Estimated cost of data acquisition is ~\$1,350,000. NOTE: Due to budget cuts NSF has “defunded” this project 6 months after we were informed that they plan to fund it.
- 2006-2009 [2] Nedimović, M. R. and Blumberg, D. (PIs); Awarded by the Climate Center Committee supported by the Vetlesen Foundation; Amount \$5,500; Title: “Paleoclimate reconstruction of the Late Quaternary and evolution of aeolian sand encroachments in the northwestern Negev Desert”; Data acquisition is planned for year 2008.
- 2004-2006 [1] Nedimović, M. R. (PI) and Carbotte, S. M. (co-PI); Awarded by the United States National Science Foundation; Award Number OCE-0424966; Amount \$82,722; Title: “Crossdip processing of swath 3D seismic reflection data”.

## Editorship

- 2008-
  - Associate Editor for *Journal of Geophysical Research - Solid Earth*.

## Invited seminars and short courses

- 2018
  - Controlled source seismics in crystalline crust: Orphan Basin. Orphan Basin Workshop, BHP - Petroleum Long Term Renewal, Houston, Texas.
- 2016
  - Formation of oceanic crust at fast and intermediate spreading rates. TOSST/HOSST program, Halifax, Nova Scotia.

- 2016 • Formation of oceanic crust at fast and intermediate spreading rates. Dalhousie University, Halifax, Nova Scotia.
- 2015 • Formation of oceanic crust at fast and intermediate spreading rates. University of Alberta, Edmonton, Alberta.
- 2015 • 2D and 3D multichannel seismic method: Deep imaging, amplitudes and velocities. UNOLS/NSF Langseth Meeting, Washington D.C.
- 2014 • Formation of oceanic crust at fast and intermediate spreading rates. Observatoire de la Cote d'Azur and CNRS, Nice, France.
- 2014 • Formation of oceanic crust at fast and intermediate spreading rates. University of Toronto, Toronto, Ontario.
- 2014 • Accretion, structure and evolution of oceanic plates formed at intermediate to fast spreading rates. Nanjing University, Nanjing, China.
- 2013 • 3D structure from crooked-line land and feathered marine 2D seismic reflection surveys. Institut de Physique du Globe de Paris, Paris, France.
- 2013 • Juan de Fuca plate from accretion to subduction. École Normale Supérieure, Paris, France.
- 2012 • Short course on extracting 3D structure from crooked-line land and feathered marine 2D seismic reflection surveys. Observatoire de la Cote d'Azur and CNRS, Nice, France.
- 2012 • Are OBS data useful for deepwater petroleum exploration? Insights from the OBWAVE experiment offshore Newfoundland. CNRS, Nice, France.
- 2012 • Juan de Fuca plate from accretion to subduction. Observatoire de la Cote d'Azur, Nice, France.
- 2012 • Juan de Fuca plate from accretion to subduction. The University of Texas at Austin Institute for Geophysics, Austin, Texas.
- 2011 • Methods of seismic refraction data analysis for the OBWAVE Project. Exxon-Mobil Upstream Research Company, Houston, Texas.
- 2011 • Juan de Fuca oceanic plate from birth to death. Geological Survey of Canada - Atlantic, Halifax, Nova Scotia.
- 2010 • Upcoming study of the Alaska/Aleutian subduction zone (Sept 2010): Mapping megathrust properties and hazards using controlled source marine seismic data. Geophysical Institute, University of Alaska, Fairbanks, Alaska. (*Donna Shillington and Mladen Nedimović.*)
- 2010 • Traveltime and waveform tomography applied to long-streamer data; opportunities in dense OBS deployments. R/V Marcus G. Langseth Workshop: Challenges and Opportunities in Academic Marine Seismology, Incline Village, Nevada.
- 2009 • Structure and evolution of the Juan de Fuca plate from accretion to subduction. "Distinguished Lecturer" series at the Department of Geology and Geophysics, Wyoming University, Laramie, Wyoming.

- 2009 • Upper crustal evolution across the Juan de Fuca ridge flanks. Department of Oceanography, Dalhousie University, Halifax, Nova Scotia.
- 2007 • Calabria GPS network: Site reconnaissance and installation. Calabria Workshop, Lamont-Doherty Earth Observatory of Columbia University, Palisades, New York.
- 2007 • Study of the Atlantic margins of Brazil and Angola. ExxonMobil Upstream Research Company, Houston, Texas. (*Harm van Avendonk and Mladen Nedimović.*)
- 2006 • Structure and evolution of the oceanic Juan de Fuca plate from accretion to subduction. Scripps Institution of Oceanography, San Diego, California.
- 2006 • 3D structure from 2D seismic reflection surveys. The University of Texas at Austin Institute for Geophysics, Austin, Texas.
- 2005 • 3D structure from 2D seismic reflection surveys. Department of Earth Sciences, Dalhousie University, Halifax, Nova Scotia.
- 2005 • Structure and evolution of the oceanic Juan de Fuca plate from accretion to subduction. Department of Earth Sciences, Dalhousie University, Halifax, Nova Scotia.
- 2005 • Structure, evolution and seismicity of the oceanic Juan de Fuca plate from accretion to subduction. Department of Geology and Geophysics, University of Hawaii, Manoa, Hawaii.
- 2005 • Structure, evolution and seismicity of the oceanic Juan de Fuca plate from accretion to subduction. The University of Texas at Austin Institute for Geophysics, Austin, Texas.
- 2005 • Structure, evolution and seismicity of the oceanic Juan de Fuca plate from accretion to subduction. Department of Earth Sciences, Syracuse University, Syracuse, New York.
- 2004 • 3D structure from 2D seismic reflection surveys. NIS-Naftagas, Belgrade, Serbia and Montenegro.
- 2004 • Crustal structure and seismic activity at subduction zones. Serbian Geological Society and Division for Geophysics, University of Belgrade, Belgrade, Serbia and Montenegro.
- 2004 • From accretion to subduction: Structure and evolution of the oceanic Juan de Fuca plate. Department of Geology, University of Toronto, Toronto, Ontario.
- 2004 • Three short seismic stories from the Cascadia margin. Department of Geology and Geophysics, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts.
- 2004 • Controlled source imaging of the Cascadia margin. Waveform Tomography 2004: Beyond the First Arrival; A workshop and a short course, Department of Geological Sciences and Geological Engineering, Queen's University, Kingston, Ontario.

- 2004 • Reflection signature of seismic and deep aseismic slip on subduction thrust. Department of Geology and Geophysics, College of Geosciences, Texas A&M University, College Station, Texas.
- 2004 • 3D structure from 2D seismic reflection surveys. Department of Geology and Geophysics, College of Geosciences, Texas A&M University, College Station, Texas.
- 2003 • Reflection imaging: 2D surveys - 3D structure. Department of Geology and Geophysics, University of Hawaii, Manoa, Hawaii.
- 2003 • Reflection signature of seismic and aseismic slip on the northern Cascadia subduction thrust. Seismology, Geology and Tectonophysics Seminar Series at the Lamont-Doherty Earth Observatory, Columbia University, Palisades, New York.
- 2003 • 3D structure from 2D seismic reflection surveys. Marine Geology and Geophysics Seminar Series at the Lamont-Doherty Earth Observatory, Columbia University, Palisades, New York.
- 2001 • Extracting 3D structure from 2D land and marine seismic reflection data: Examples from Ontario and Philippine Sea. Department of Geosciences, University of Manitoba, Winnipeg, Manitoba.
- 2001 • 3D structure from 2D crooked line seismic reflection data. School of Earth and Ocean Sciences, University of British Columbia, Vancouver, British Columbia.
- 1999 • Seismic reflection imaging in crystalline terrains: Major challenges and suggested solutions. Pacific Geoscience Centre, Geological Survey of Canada, Sidney, British Columbia.

## Postdoctoral supervision and research associates

- 2018-2020 • Hanchao Jian, Ocean Frontiers Institute Dal-WHOI Post Doctorate Fellow, Dalhousie University and WHOI.
- 2016-2017 • Fabio Perosi, Post Doctorate Research Associate, Dalhousie University. Now Associate Professor, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil.
- 2011-2013 • Anne Bécel, Post Doctorate Fellow, Columbia University. Now Lamont Assistant Research Professor, Columbia University, New York, USA.
- 2011-2014 • Berta Biescas, Marie Currie International Post Doctorate Fellow, Dalhousie University. Now researcher at the Unidad de Tecnología Marina - Consejo Superior de Investigaciones Científicas, Barcelona, Spain.
- 2010-2013 • Louise Watremez, Post Doctorate Fellow, Dalhousie University. Now Assistant Professor at LILLE 1 University, Lille, France.
- 2010- • Helen Lau, Research Associate, Dalhousie University.
- 2008-2010 • Matthias Delescluse, Post Doctorate Fellow, Dalhousie University. Now Professor at École Normale Supérieure in Paris, France.

- 2008-2009 • Ramzi Mirshak, Post Doctorate Fellow, Dalhousie University. Now with the Defence Research and Development Canada, Ottawa, Canada.
- 2007-2010 • Helene Carton, Post Doctorate Research Scientist, Columbia University. Now Assistant Professor, Institut de Physique du Globe de Paris, Paris, France.

## Graduate student supervision

- 2016- • Ana Corbalán, Ph.D. student, Dalhousie University; Scholarships received: 2016-2018 scholarship from Fundación Bancaria La Caixa, Spain and 2017-2021 NSERC Create TOSST Scholarship.
- 2016- • Lisa Samrock, Ph.D. student, Kiel University; Scholarships received: HOSST Scholarship.
- 2016 • Reyes Montes Jorge Ismael, Visiting Student, Dalhousie University; Full scholarship from the National Council of Science and Technology (CONACYT) of Mexico. Now doing his MSc at the Centro de Investigacion Cientifica y de Educacion Superior de Ensenada, Mexico.
- 2015- • Falko Vehling, Ph.D. student, Kiel University; Scholarships received: HOSST Scholarship.
- 2015- • Tatum Herrero, Ph.D. student, Kiel University; Scholarships received: HOSST Scholarship.
- 2015- • Masoud Aali, Ph.D. student, Dalhousie University; Scholarships received: 2015-2019 NSERC Create TOSST Scholarship.
- 2013- • Dustin Whalen, M.Sc. student, Dalhousie University; On a scholarship from the Geological Survey of Canada.
- 2013-2014 • Aaron Farkas, M.Sc. student, Dalhousie University. Dropped out to pursue other interests.
- 2011- • Harold Kuehn, Ph.D. student, Dalhousie University; Scholarships received: Nedimović Family Scholarship, 2015 and 2016.
- 2010-2014 • Tanya Forde, M.Sc. student, Dalhousie University; Scholarships received: Lew King Award.
- 2008-2010 • Eric Negulic, M.Sc. student, Dalhousie University; Scholarships received: Pengrowth Nova Scotia Petroleum Innovation Grant. Now with Artisanal Gold Council, Vancouver, BC, Canada.
- 2007-2013 • Omid Aghaei, Ph.D. student, Dalhousie University; Scholarships received: Nedimović Family Scholarship, 2013. Now with Shell Canada, Calgary, Canada.
- 2007-2009 • Cody MacDonald, M.Sc. student, Dalhousie University; Scholarships received: Pengrowth Nova Scotia Petroleum Innovation Grant. Now with ExxonMobil, Houston, USA.
- 2007-2010 • Clarke Campbell, M.Sc. student, Dalhousie University; Scholarships received: Pengrowth Nova Scotia Petroleum Innovation Grant. Now with Talisman in Calgary, Canada.

- 2007-2009 • Jonathan Cribb, M.Sc. student, Dalhousie University; Scholarships received: Pengrowth Nova Scotia Petroleum Innovation Grant. Now with Shell Canada, Calgary, Canada.
- 2006-2013 • Milena Marjanović, Ph.D. student, Columbia University; Scholarships received: Columbia University Graduate Scholarship; SEG Scholarship. Now a Marie Currie International Post Doctorate Fellow at IPGP, Paris, France.
- 2005-2010 • Kori R. Newman, Ph.D. student, Columbia University; Scholarships received: Columbia University Graduate Scholarship; Bruce C. Heezen Graduate Research Fellowship. PhD degree not completed: Now works for geophysical environmental consulting companies in the US.

## **Undergraduate student supervision**

- 2017-2018 • Graham Kerford, honours thesis student, Dalhousie University; B.Sc. thesis title: Not chosen so far.
- 2017-2018 • Colton Bentley, honours thesis student, Dalhousie University; B.Sc. thesis title: Not chosen so far.
- 2013-2014 • Mitch Grace, honours thesis student, Dalhousie University; B.Sc. thesis title: Seismic reflection imaging of the incoming plate in the Alaska subduction zone.
- 2012 • Adam Bartlett, summer student, Dalhousie University; Funded by NSERC USRA.
- 2011 • Aaron Farkas, summer student, Dalhousie University; Funded by Shell's SELF Program.
- 2010 • Peter Regan, summer student, Dalhousie University; Funded by Shell's SELF Program.
- 2010 • Darragh O'Connor, summer student, Dalhousie University; Funded by Shell's SELF Program.
- 2007-2008 • Eric Negulic, summer and honors thesis student, Dalhousie University; Funded by Shell's SELF Program; B.Sc. thesis title: 4D thermal and petroleum systems modeling of the central Scotian slope in and around the eastern Shelburne sub-basin.
- 2007 • Matthew Kliffer, summer student, Dalhousie University; Funded by Shell's SELF Program.
- 2003 • Teresa Riehl, summer intern, Columbia University.
- 2002 • Karen Simon, honors thesis, University of Victoria.

## **Thesis supervisory and/or examining committee membership**

- 2008-2014 • Shuoshuo Han, Ph.D. student, supervisory committee, Columbia Univ.
- 2007 • Yue Wu, Ph.D. student, examining committee, Dalhousie Univ.
- 2007 • Karen Simon, M.Sc. student, examining committee, Dalhousie Univ.



- 2007-2011 • Sakalima Sikaneta, Ph.D. student, supervisory committee, Dalhousie Univ.
- 2006-2013 • Joanna Gerlings, Ph.D. student, supervisory committee, Dalhousie Univ.
- 2007-2009 • Dawn Kellet, Ph.D. student, supervisory committee, Dalhousie Univ.
- 2006-2009 • Virginia Brake, M.Sc. student, supervisory committee, Dalhousie Univ.

### **Thesis external supervisory and examination committee**

- 2017 • External examiner for Rajesh Vayavur, Simon Fraser University; PhD thesis.
- 2016 • External examiner for Jiyao Li, Lamont-Doherty Earth Observatory of Columbia University; PhD thesis.
- 2009 • External Ph.D. thesis committee member for Jordan Lee Hayes, Ph.D. candidate at the Department of Geology and Geophysics, University of Wyoming.
- 2008 • External examiner for Julie Smith, Memorial University; M.Sc. thesis.

### **Contributions as a reviewer**

- 2000-present • Canada Research Chair Tier I
- NSERC Industrial Research Chair
- NSERC Discovery Grants
- NSF Programs (OCE, EAR, Margins, RIDGE2000, etc.)
- NERC (Natural Environment Research Council)
- National Science Centre, Poland
- Tenure and Promotion External Reviewer
- Nature
- Science
- Nature Geoscience
- Geology
- G-cubed
- Journal of Geophysical Research - Solid Earth
- Geophysical Journal International
- Geophysical Research Letters
- Economic Geology
- Geophysics
- Society of Petroleum Engineers - Reservoir Evaluation and Engineering

## Other contributions (including administration at Dal)

- 2017-2018 • Member of the Department of Earth Sciences, Dalhousie University, DFA Diversity Faculty Position in Geophysics Search Committee.
- 2016-2017 • Member of the Department of Earth Sciences, Dalhousie University, Canada Research Chair in Coastal Processes Search Committee.
- 2015- • Member of the Faculty of Science, Dalhousie University, Tenure and Promotions Committee.
- 2015 • Acting Chair, Earth Sciences, Dalhousie University.
- 2014-2017 • Member of the Geosciences Selection Committee and Evaluation Group (EG 1506) for the NSERC Discovery Program.
- 2014-2008-2010 • Associate Chair at the Department of Earth Sciences, Dalhousie University (includes Space Committee, Overhead Committee, Shell SELF Committee).
- 2014-2015 • Member of the Department of Earth Sciences, Dalhousie University, Chair Search Committee (external candidate search).
- 2014-2015 • Member of the Department of Earth Sciences, Dalhousie University, Search Committee for a new tenure-track assistant professor.
- 2013- • Member of the Dalhousie University Promotions and Tenure Appeals Committee.
- 2012 • Started Nedimović Family Graduate Scholarship in the Department of Earth Sciences, Dalhousie University, with a 50,000 dollar endowment.
- 2011- • Chair of the Department of Earth Sciences, Dalhousie University, Tenure and Promotions Committee.
- 2011-14 • Member of the Department of Earth Sciences, Dalhousie University, Award Nominations Committee.
- 2010 • Member of the MoHole Workshop steering committee, Kanazawa, Japan.
- 2009-10 • Chair of the Department of Earth Sciences NSERC-IRC in Salt Tectonics search committee.
- 2010 • Interviewed by Global Network Television.
- 2009 • Member of the Faculty of Sciences CERC (Canada Excellence Research Chair) in Ocean Science and Technology search committee. Our CERC candidate was approved by the CERC Selection Board, along with only 18 other candidates for all of Canada. CERC receives 10,000,000 CAD funding from the federal government.
- 2008-2009 • Member of the Faculty of Sciences search committee, Dalhousie University, for the Department of Economics Chair.
- 2006-2008 • Member of the Steering, Technical and Publications committees for the Central Atlantic Conjugate Margins Conference, Halifax 2008.
- 2007 • Member of the Department of Earth Sciences, Dalhousie University, Carnegie Chair Committee.

- 2007
  - Co-proponent for two IODP Missions: Mission Moho and Mission Continental Rifting and Breakup.
- 2006-11
  - Member of the Department of Earth Sciences, Dalhousie University, Graduate Studies Committee.
- 2006-11
  - Member of the Department of Earth Sciences, Dalhousie University, Computing Committee.
- 2006-11
  - Representative of the Department of Earth Sciences on the Dalhousie University Science Library Committee.
- 2004-2007
  - Worked with Paul Henkart from Scripps Institution of Oceanography on incorporating into SIOSEIS software my codes for swath 3D processing of crooked-line 2D land and feathered 2D marine seismic reflection data.
- 2006
  - Interviewed by the Educational Program of Radio and Television Serbia about subduction zone earthquakes.
- 2006
  - My contributions to understanding the complexities of the deep magmatic plumbing systems at mid-ocean ridges were featured in the Lamont-Doherty Earth Observatory Biennial Information Piece and the Lamont-Doherty Earth Observatory Biennial Report for years 2004-6, under the solid earth dynamics research.
- 2006
  - Member of the LDEO Search Committee for a full-time active source marine seismologist.
- 2005-2006
  - Member of the Lamont-Doherty Earth Observatory of Columbia University Post Doctoral Fellowship Committee.
- 2005
  - My research published in Nature in 2005 that provides insight into the complexity of the deep magmatic plumbing at mid-ocean ridges and supports the hypothesis on crustal accretion from multiple magma bodies was featured on the front page of the National Science Foundation webpage, on the RIDGE2000 webpage under the "ridge-related science in the news" section, as well as on other web pages worldwide.
- 2005
  - Member of the Steering Committee for the "3-D Seismic Reflection Imaging: A new opportunity for Marine Geoscience Research" workshop held at the Lamont-Doherty Earth Observatory of Columbia University in September of 2005.
- 2004
  - In the Fall 2004 I discussed my research on reflection mapping of subduction earthquake rupture area with Nathan Williams, a producer for the BBC Two's flagship 50-minute science documentary series Horizon, who was filming an episode on the potential hazard posed by the Cascadia subduction zone. I was also interviewed by Kate Ravilious who was writing an article for the Focus magazine to be published in conjunction with the forthcoming BBC Horizon program.
- 2004
  - My contributions to understanding the subduction zone seismic hazards were featured in the Lamont-Doherty Earth Observatory Biennial Information Piece and the Lamont-Doherty Earth Observatory Biennial Report for years 2002-4, under the solid earth dynamics research.

- 2004
  - Ideas and methods I developed with Gordon West on improving imaging and extracting 3D structure from crooked-line 2D land or feathered 2D marine seismic reflection data, along with two of our figures, are included in the Second Edition of a bestseller textbook *Elements of 3D Seismology*, Christopher L. Liner, *Pennwell Publishing Company*, 557 p, to be published in 2004; First Edition published in 1999.
- 2003-2004
  - Marine Geology and Geophysics Division Seminar Series Coordinator at the Lamont-Doherty Earth Observatory of Columbia University.
- 2003-2004
  - I wrote the convergent margins part of the successful proposal to NSF (Diebold, J. B. PI, NSF OCE 03-42067, \$3,975,279) to upgrade MCS capabilities on the *R/V Maurice Ewing*. I also contributed to the Lamont's successful proposal to NSF (Purdy, G. M. and Diebold, J. B. PIs, NSF OCE 04-07354, \$6,237,250) to buy a replacement vessel for Ewing. John Diebold and I wrote the reflection imaging part of the science section of the proposal.
- 2003-2004
  - Concepts and a figure about the research I did in collaboration with my west coast colleagues on reflection mapping of the great earthquake rupture area at the northern Cascadia subduction zone are included in the Second Edition of a bestseller textbook *The Solid Earth: An Introduction to Global Geophysics*, C. Mary R. Fowler, *Cambridge University Press*, 2004. Articles about this research were also featured on the front page of the *New York Sun* (August 12<sup>th</sup>, 2003), *Vancouver Sun* (August 14<sup>th</sup>, 2003) and *Victoria Times Colonist* (August 14<sup>th</sup>, 2003), with additional articles published worldwide in other daily newspapers and on web sites.
- 1999
  - Invited speaker at the retirement gala for Prof. G. F. West, Royal York Hotel, Toronto, Canada.
- 1999
  - Piano recital delivered at the Society of Exploration Geophysicists Presidential Session, SEG Annual Meeting in Houston, Texas.
- 1998
  - Invited speaker at the inauguration of the TECK Chair in Exploration Geophysics, Massey College, University of Toronto, Toronto, Canada.
- 1995-2006
  - School of Graduate Studies Council student member, University of Toronto.

## Extracurricular activities and achievements

- Theatre Resource Centre - Clown through mask, teacher Sue Morisson (1997).
- Mountaineering Association of Serbia. Degree received: Speleologist (May 3<sup>rd</sup>, 1986).
- Music school “Davorin Jenko”, classical piano (1973 to 1979). Graduated in June, 1979.
- Hobbies: Music and collecting books, maps, fossils, minerals and crystals.