

Prof. Dr. Céline M. Hadziioannou

CONTACT INFORMATION	<p>Institute of Geophysics University of Hamburg Bundesstrasse 55 20146 Hamburg Germany</p> <p>Phone: +49 (0)40 42838 2980 ORCID.ORG/0000-0002-5312-2226 celine.hadziioannou@uni-hamburg.de http://celine.hadzii.com</p>
CITIZENSHIP	French and Greek
DATE OF BIRTH	April 29, 1983
RESEARCH INTERESTS	<p>Ambient seismic noise and its sources; Ocean–Solid-Earth interaction, Seismic interferometry; Scattered wavefields; Coda waves; Monitoring time-dependent material changes; Emerging seismic sensing technology</p>
ACADEMIC APPOINTMENTS	<p>University of Hamburg Hamburg, Germany <i>Junior Professor in Seismology</i> 2017 – present <i>(Parental leave: full time 03.2020 – 10.2020; part time 10.2020 – 04.2021)</i></p> <p>Ludwig-Maximilians University Munich (LMU) Munich, Germany <i>Leader of the Emmy Noether Research Group</i> 2013 – 2017 <i>“The origin of Love waves in the ocean generated noise wave field”</i></p> <p>Ludwig-Maximilians University Munich (LMU) Munich, Germany <i>Postdoctoral Researcher</i> 2011 – 2013 Marie Curie QUEST ITN Postdoctoral fellow Research: “Rotational motions, ambient noise and diffuse wavefields”</p>
EDUCATION	<p>Institut des Sciences de la Terre (ISTerre) Grenoble, France <i>PhD, Seismology</i> 2007 – 2011 Research: “Seismic waves in complex media: measuring temporal velocity variations” Advisors: Prof. Dr. Michel Campillo and Dr. Eric Larose</p> <p>Universiteit van Utrecht (UU) Utrecht, the Netherlands <i>Master of Science, Geophysics</i> 2005 – 2007</p> <p>Rijksuniversiteit Groningen (RuG) Groningen, the Netherlands <i>Bachelor of Science, Astrophysics</i> 2001 – 2005</p>
PROFESSIONAL SERVICE	<p>Coordinator of EU Horizon 2020 MCSA-ITN project “SPIN - Monitoring a Restless Earth” 2020 – 2025</p> <p>Member of the committee for Hamburg State Graduate Funding Program scholarships 2019 – present</p> <p>Member of Department council for the Department of Earth System Sciences, University of Hamburg 2022 – present</p> <p>Examination board of Geophysics Bachelor and Master programme 2020 – present</p> <p>Member of the DEPAS pool steering committee (German instrument pool for amphibian seismology) 2018 – present</p> <p>Member of the German Geophysical Society (DGG) Equal opportunity committee 2018 – present</p> <p>Mentor in the DGG+AGU Mentoring365 programme 2020 – present</p> <p>Member of LMU University Research Board 2014 – 2019</p> <p>Representative of LMU and the University of Hamburg 2015 – 2018 as associate partner in EU Horizon 2020 ITN “WAVES” (coordinated by Dr. Lapo Bosci, UPMC Paris)</p> <p>Work package leader in EU Horizon 2020 COST action “TIDES” 2014 – 2017 (coordinated by Dr. Andrea Morelli, INGV Bologna)</p> <p>Project partner in the ERC project “ROMY” 2014 – 2019 (PI: Prof. Dr. Heiner Igel, LMU)</p>

SCIENTIFIC COMMUNITY SERVICE	Lead Organizer of the SPIN third Workshop , Pitlochry, UK	2023
	Lead Organizer of the SPIN third Short Course , Pitlochry, UK	2023
	Scientific Committee 6th IWGoRS Workshop on Rotational Seismology in Paris, France	2022
	Lead Organizer of the SPIN second Workshop , Carcans, France	2022
	Lead Organizer of the SPIN second Short Course , Carcans, France	2022
	Lead Organizer of the SPIN first Workshop , Tutzing, Germany (Online due to Covid)	2021
	Organization Committee COST-TIDES 4th Training school in Prague, Czech Republic	2018
	Organization Committee AMÜSE PhD Conference in Hinterriss, Austria	2016
	Organization Committee 4th IWGoRS Workshop on Rotational Seismology in Tutzing, Germany	2016
	Lead Organizer of Workshop "The Earth's Hum" in Munich	2014
	Organization Committee for the 4th QUEST-ITN workshop	2013
	Organization Committee Workshop "Noise and Diffuse Wavefields" in Neustadt an der Weinstrasse, Germany	2012
	Session Convener & Chair of the yearly Ambient Seismic Noise session at EGU General Assembly, Vienna, Austria	2012–2021
	Session Convener of Rotational Seismology session at EGU General Assembly, Vienna, Austria	2018–2019; 2022
HONOURS & AWARDS	Session Convener & Chair of "Seismic Noise" session (invited chair) at the 76th yearly meeting of the German Geophysical Society (DGG)	2016
	Session Convener & Chair , AGU Fall Meeting, San Francisco, USA	2015
	Peer Reviewer for Research grants (French National Research Agency (ANR), Helmholtz Association, ETH Research commission, LMU Research Board) and for Scientific journals (GRL, GJI, JGR, J. Appl. Geophysics, J. of Seism., Nature Communications, Earth, Planets and Space)	
REFEREED JOURNAL PUBLICATIONS	Emmy Noether research fellowship (DFG)	2013
	Member of the LMU Center for Advanced Studies (CAS LMU)	2014 – 2017
	Nominated by the DFG as member of AcademiaNet (profiles of leading women scientists)	2014
	Citations \approx 1760; h-index 16; Source: Google Scholar WvhdbrgAAAAJ	
	Students under my supervision are indicated with a red star [*] ; postdocs with two black stars ^{**}	
	– C. Bruland [*] , C. Hadziioannou , Gliding tremors from the Gulf of Guinea shed light on 70 year old mystery, in revision at <i>Nature Communications Earth & Environment</i>	
	– J. Pelaez Quiñones [*] , D. Becker ^{**} , C. Hadziioannou , Beamforming of Rayleigh and Love waves in the course of Atlantic cyclones, in revision at <i>J. Geophys. Res. Solid Earth</i> , preprint here	
	32. S. Schippkus ^{**} , R. Snieder, C. Hadziioannou , Seismic interferometry in the presence of an isolated noise source, in press at <i>Seismica</i> (community-driven diamond open-access journal), preprint here	
	31. C-M Liao, K. Hicke, F. Bernauer, H. Igel, C. Hadziioannou , E. Niederleithinger, Multi-Sensor measurements on a large-scale bridge model, conference abstract at 5. Brückenkolloquium 2022	2022
	30. S. Schippkus ^{**} , C. Hadziioannou , Matched Field Processing for complex Earth structure, <i>Geophys. J. Int.</i> , preprint here	2022

29. D. Essing^{*}, V. Schlindwein, M. C. Schmidt-Aursch, **C. Hadziioannou**, Simon Stähler
Characteristics of current-induced harmonic tremor signals in ocean bottom seismometer records, *Seismol. Res. Lett.* 92(5) 2021
28. R. Steinmann^{*}, E. Larose, **C. Hadziioannou**
Effect of centimetric freezing of the near subsurface on Rayleigh and Love wave velocity in ambient seismic noise correlations *Geophys. J. Int.* 224.1 2021
27. H. Igel, K. U. Schreiber, A. Gebauer, F. Bernauer, S. Egdorf, A. Simonelli, C.-J. Lin, J. Wassermann, S. Donner, **C. Hadziioannou**, S. Yuan, A. Brotzer, J. Kodet, T. Tanimoto, U. Hugentobler, and J. P. R. Wells
ROMY: A Multi-Component Ring Laser for Geodesy and Geophysics, *Geophys. J. Int.* 225.1 2020
26. D. Becker^{**}, L. Cristiano, J. Peikert, T. Kruse, F. Dethof^{*}, **C. Hadziioannou**, and T. Meier, Temporal modulation of the local microseism in the North Sea, *J. Geophys. Res. Solid Earth*, 125 (10) 2020
25. **C. Hadziioannou**, J. Salvermoser^{*}, R. Steinmann^{*}, L. Marten^{*}, E. Niederleithinger
Structural health monitoring meets ambient noise seismology
Solicited extended abstract for EAGE "1st Conference on Geophysics for Infrastructure Planning Monitoring and BIM, 2019" (peer reviewed) 2019
24. M. van Driel, S. Ceylan, J. F. Clinton, D. Giardini, R. Weber, P. Lognonné, B. Banerdt, M. Drilleau, N. Murdoch, M. Panning, R. Garcia, D. Mimoun, M. Golombek, J. Tromp, M. Böse, I. Daubar, B. Kenda, A. Khan, L. Perrin, A. Spiga, M. S. Boxberg, M. Parath, M. Ditz, A. Lamert, T. Möller, S. Zhang, D. Ambrois, J. Chêze, F. Peix, H. Alemany, D. Mercerat, J. Balestra, A. Deschamp, C. Twardzik, L. Rolland, S. Mader^{*}, L. Marten^{*}, C. Schröer^{*}, D. Becker^{**}, T. Casademont^{*}, F. Dethof^{*}, D. Essing^{*}, K. Grunert^{*}, **C. Hadziioannou**, I. Hochfeld^{*}, T. Kilchling^{*}, F. Mehrkens^{*}, P. Neumann^{*}, R. Neurath^{*}, R. Steinmann^{*}, N. Trumpik^{*}, P. Werdenbach-Jarklowski^{*}, H. Hu, J. Li, Y. Zheng, E. Stutzmann, M. Schimmel, C. Hammer, B. Knapmeyer-Endrun, S. C. Stähler, N. Brinkman, S. Kedar, F. Euchner, B. Fernando, M. Tsekhmistrenko, K. Hosseini, C. Haindl, H. Godwin, A. Szenicer, T. Garth, and A. Allam
Preparing for InSight: Evaluation of the Blind Test for Martian Seismicity
Seismol. Res. Lett. 2019
23. S. Stähler, M. Panning, **C. Hadziioannou**, R. Lorenz, S. Vance, K. Klingbeil, S. Kedar
Seismic signal from waves on Titan's seas
Earth and Planetary Science Letters 520, 250–259 2019
22. B. Chow^{*}, J. Wassermann, B. Schuberth, **C. Hadziioannou**, S. Donner and H. Igel
Love wave amplitude decay from rotational ground motions
Geophys. J. Int. 218(2) 1336–1347 2019
21. L. Gualtieri, E. Stutzmann, C. Juretzek^{*}, **C. Hadziioannou** and F. Arduin
Global scale analysis and modeling of primary microseisms,
Geophys. J. Int. 218(1) 2019
20. D. Ziane^{*} and **C. Hadziioannou**
The contribution of multiple scattering to Love wave generation in the secondary microseism, *Geophys. J. Int.* 217 (2) 2019
19. L. Krischer, S. Donner, M. van Driel, **C. Hadziioannou**, M. Koymans, J. Leeman, F. Lindner, T. Megies, C. Nunn, A. Rijal, J. Salvermoser^{*}, T. Taufiqurrahman, S. Wollherr, D. Vargas, J. Wassermann, F. Wölfl, C. Tape and H. Igel
Seismo-Live: An Educational Online Library of Jupyter Notebooks For Seismology,
Seismol. Res. Lett., 89 (6) 2018
18. S. Hable, K. Sigloch, G. Barruol, S. C. Stähler, **C. Hadziioannou**
Clock errors in land and ocean bottom seismograms: High-accuracy estimation using multiple component noise cross-correlations, *Geophys. J. Int.*, 214(3) 2018
17. F. Lindner, C. Weemstra, F. Walter, **C. Hadziioannou**
Towards Monitoring the englacial fracture state using virtual-reflector seismology,
Geophys. J. Int., 214(2) 2018
16. C. Juretzek^{*}, **C. Hadziioannou**,
Linking source region and ocean wave parameters with the observed primary microseismic noise, *Geophys. J. Int.*, 211(3), p1640-1654, 2017
15. S. Donner, C.-J. Lin, **C. Hadziioannou**, A. Gebauer, F. Vernon, D. C. Agnew, H. Igel, U. Schreiber, J. Wassermann,

- Comparing direct observation of strain, rotation, and translation with array estimates at Pinon Flat Observatory, California, *Seismol. Res. Letters* 88 (4) **2017**
- 14.** J. Salvermoser*, C. Hadziioannou, S. Hable*, L. Krischer, B. Chow, C. Ramos, J. Wassermann, U. Schreiber, A. Gebauer, H. Igel,
An event database for rotational seismology, *Seismol. Res. Letters* 88 (3), **2017**
- 13.** T. Tanimoto, C.-J. Lin, C. Hadziioannou, H. Igel, F. Vernon,
Estimate of Rayleigh-to-Love wave ratio in the secondary microseism by a small array at Piñon Flat Observatory, California, *Geophys. Res. Lett.*, 43, **2016**
- 12.** C. Juretzek*, C. Hadziioannou,
Where do ocean microseisms come from? A study of Love-to-Rayleigh wave ratios, *J. Geophys. Res. Solid Earth*, 121, **2016**
- 11.** A. Obermann, T. Planès, C. Hadziioannou, M. Campillo,
Lapse-time dependent coda wave depth sensitivity to local velocity perturbations in 3-D heterogeneous elastic media, *Geophys. J. Int.*, 207 (1), 59-66 **2016**
- 10.** C. Wu, A. Delorey, F. Brenguier, C. Hadziioannou, E. Daub, P. Johnson,
Constraining depth range of S-wave velocity decrease after large earthquakes near Parkfield, California, *Geophys. Res. Lett.*, 43 **2016**
- 9.** J. Wassermann, A. Wietek*, C. Hadziioannou, H. Igel,
Toward a Single Station Approach for Microzonation: Using Vertical Rotation Rate to Estimate Love-Wave Dispersion Curves and Direction Finding, *BSSA*, 106 (3) **2016**
- 8.** T. Tanimoto, C. Hadziioannou, H. Igel, J. Wassermann, U. Schreiber, A. Gebauer, B. Chow,
Seasonal variations in the Rayleigh-to-Love wave ratio in the secondary microseism from co-located ring laser and seismograph, *J. Geophys. Res. Solid Earth*, 121, **2016**
- 7.** J. Salvermoser*, C. Hadziioannou, S. Stähler,
Structural monitoring of a highway bridge using passive noise recordings from street traffic, *J. of the Acoust. Soc. Am.*, **138**, 3864 **2015**
- 6.** T. Tanimoto, C. Hadziioannou, H. Igel, J. Wasserman, U. Schreiber, A. Gebauer,
Estimate of Rayleigh-to-Love wave ratio in the secondary microseism by co-located ring laser and seismograph, *Geophys. Res. Lett.*, 42 **2015**
- 5.** C. Hadziioannou, P. Gaebler, U. Schreiber, J. Wassermann, H. Igel,
Examining ambient noise using co-located measurements of rotational and translational motion, *Journal of Seismology*, 16(4), 787–796, **2012**
- 4.** C. Hadziioannou, E. Larose, A. Baig, P. Roux, M. Campillo,
Improving Temporal Resolution in Ambient Noise Monitoring of Seismic Speed, *J. Geophys. Res.* 116: B0730, **2011**
- 3.** R. Weaver, C. Hadziioannou, E. Larose, M. Campillo,
On the precision of noise correlation interferometry, *Geophys. J. Int.* 185, 1384–92, **2011**
- 2.** C. Hadziioannou, E. Larose, O. Coutant, P. Roux, M. Campillo,
Stability of monitoring weak changes in multiply scattering media with ambient noise correlation: Laboratory experiments, *J. of the Acoust. Soc. Am.* 125, 3688–95, **2009**
- 1.** F. Brenguier, M. Campillo, C. Hadziioannou, N. Shapiro, R. Nadeau, E. Larose,
Postseismic relaxation along the San Andreas fault at Parkfield from continuous seismological observations, *Science* 321, 1478–81, **2008**

EDITED BOOKS & BOOK CHAPTERS

- S. Donner, H. Igel, C. Hadziioannou and the ROMY Group
Retrieval of the seismic moment tensor from joint measurements of translational and rotational ground motions, In: *"Moment Tensor Solutions - A Useful Tool for Seismotectonics"* (Springer; Editor: Sebastiano D'Amico), **2018**
- A. Schmidt, C. Sens-Schönfelder, C. Hadziioannou, U. Wegler, E. Niederleithinger (Editors), *Noise and Diffuse Wave Fields, Extended Abstracts of the Neustadt Workshop, Mitteilungen Deutsche Geophysikalische Gesellschaft e.V., Sonderband IV/2012;* **2012**

OUTREACH

- A. Morelli, C. Hadziioannou, C. Bean.
Time Dependent Seismology. *Impact* 2017, no. 1 p74-76, **2017**

FUNDING	Coordinator of H2020-MSCA-ITN “ SPIN ” (European Commission): European Training Network with 15 PhD positions, PI; approximately 4 M€; my project ± 505k€	2021 – 2025
	BMBF collaborative project “ 3G-GWD : Third Generation Gravitational Wave Telescope” co-PI; UHH approximately 515k€; my project ± 205k€	2020 – 2023
	BMBF Early detection of earthquakes and their consequences: “ GIOTTO – Building vibrations: structure monitoring with innovative sensor concept” co-PI; approximately 800k€; my project ± 204k€	2020 – 2023
	Participation in Cluster of Excellence CliCCS project C1 Sustainable Adaptation Scenarios for Urban Areas – Water from Four Sides “Groundwater monitoring with ambient seismic noise”, approximately 63 k€	2019 – 2025
	University of Hamburg “Ideen- und Risikofonds” “ Characterizing extreme weather events in the past using historical seismic records ”; PI; 14.8 k€	2019
	University of Hamburg “Lehrlabor” project “ JUNOSOL ” for developing innovative course material PI; 1 year PhD position + 1 year student assistant; equivalent ± 37k€	2018 – 2019
	Seed funding for assistance writing & coordinating ITN proposal (10 k€)	2018
	Seed funding for assistance writing & coordinating ITN proposal (10 k€)	2017
	University of Hamburg investment fund CliSAP–CliCCS: 75 k€ + 1 year PhD position	2017
	Emmy Noether Fellowship (DFG): “The origin of Love waves in the ocean generated noise wave field” PI; approximately 860 k€	2013 – 2018
TEACHING	Supervision of 6 PhD students, 24 MSc projects, 8 BSc projects; Collaboration with 3 Postdocs.	
	Earthquakes , BSc/MSc course at Universität Hamburg (2 SWS)	2021 – present
	Ambient Noise Seismology , MSc course at Universität Hamburg (3 SWS)	2021 – present
	Seminar Seismologie , MSc course at Universität Hamburg (2 SWS)	2017-2022
	Body & Surface wave Seismology , MSc course at Universität Hamburg, lectures and exercises (2+2 SWS)	2017 – present
	Seismologie , BSc course (6. Sem) at Universität Hamburg, lectures and exercises (2+2 SWS)	2017 – present
	Seismic noise spectra and polarisation , TIDES training school on seismic data, Bertinoro, Italy	2015
	Geophysikalische Datenanalyse , BSc course at LMU München, lectures and exercises (2+1 SWS)	2015
	Geophysical Data Acquisition and Analysis , MSc course at LMU München, lectures and exercises (2+2 SWS)	2013 – 2016
	Tutorial on Ambient noise correlations , QUEST Workshop	2013
	Introduction to Seismology; Signal Processing , Special course at ROSE school, Pavia, Italy	2012
	Applied Geophysics , Exercises for BSc course at LMU München (in German, 2 SWS)	2011 & 2012
TOOLS	Rotational Seismology Event Database Online access to more than 17,000 Earthquake waveforms and processed plots from signals recorded simultaneously by the Wettzell ring laser and a nearby seismometer.	launched 2017
	Seismo-Live (http://seismo-live.org/) Contribution of teaching notebooks, e.g. “Signal Processing”, “Ambient Seismic Noise”, “Rotational Seismology”	

SELECTED INVITED PRESENTATIONS	Keynote Talk at the “Deutsche Physikerinnentagung” (German Conference of Women in Physics)	2022
	Invited Lecturer at URBASIS-EU ITN Winter School on “Urban Seismology” (Cancelled due to COVID-19)	
	Invited Lecturer at Cargese Summer School “Passive imaging and monitoring in wave physics: from seismology to ultrasound”	
	Keynote Talk at the yearly meeting of the German Geophysical Society (DGG)	2021
	Invited Talk at the EAGE Near Surface Geoscience Conference workshop ‘Seismic Interferometry: Imaging and monitoring from Near-Surface to Civil Engineering applications’ (Cancelled due to COVID-19)	
	Invited Talk & Panelist at the AGU Fall Meeting session “Observation of Rotation, Strain and Translation in Seismology: Applications, Instrumentation and Theory”	2020
	Invited Lecturer at Cargese Summer School “Ambient Noise Imaging and Monitoring”	2019
	Keynote at the EAGE “1st Conference on Geophysics for Infrastructure Planning Monitoring and BIM”	
	Invited Talk at the University of Edinburgh, UK	
	Invited Talk at University of Oxford, UK	
	Invited Talk at Christian-Albrechts-Universität Kiel, Germany	2018
	Invited Talk at Ruhr-Universität Bochum, Germany	
	Invited Lecturer at Cargese Summer School “Ambient Noise Imaging and Monitoring”	2017
	Invited Talk at the University of Hamburg, Institute of Soil Science	
	Trainer at the TIDES 2nd training school, Sesimbra, Portugal	2016
	Invited Talk at WAVES workshop “Advances in Imaging”, Delft, the Netherlands	
	Trainer at the TIDES 1st training school, Bertinoro, Italy	2015
	Invited Talk at the Swiss Seismological Service, ETH, Zurich, Switzerland	
	Invited Talk at Westfälische Wilhelms-Universität Münster, Germany	
	Invited Talk at Utrecht University, Utrecht, the Netherlands	2014
	Invited Talk at Géoazur, Sophia-Antipolis, France	2013
	Invited Talk at ETH Zurich, Switzerland	
	Invited Talk at Universität Leipzig, Germany	2011
	Invited Talk at Quest workshop, Sardinia	2010

LANGUAGES

Written & spoken fluently: English, Dutch, French
Conversational: German
Basic knowledge: Greek