

Jean-Philippe Avouac

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Short Bio

Jean-Philippe Avouac is the Earle C. Anthony Professor of Geology and Professor of Mechanical and Civil Engineering at the California Institute of Technology. He has been the director of the NSF center for Geomechanics and the Mitigation of Geohazards since its creation in 2018 and was president of the Tectonophysics section of the American Geophysical Union from 2020 to 2022. Jean-Philippe Avouac uses seismology, remote sensing, and geodesy to study earthquakes, tectonic and geomorphological processes. His recent activities have focused on the effect of subsurface fluid injection and extraction, for geothermal energy production or CO₂ storage, on crustal deformation and seismicity.

Jean-Philippe Avouac graduated from Ecole Polytechnique (France) in 1987 where he received a high-level education in mathematics, physics and engineering. He received his Ph.D. in Geology from the Institut de Physique du Globe de Paris, France, in 1991. He joined the Commissariat à l'Énergie Atomique in 1991 where he led the Laboratoire de Télédétection et Risque Sismique from 1996, until he moved to Caltech in 2003. He was the director of the Caltech Tectonics Observatory from 2004 to 2014. He worked as the BP-McKenzie Professor of Earth Sciences at the University of Cambridge (2014-2015).

Jean-Philippe Avouac has been co-Editor-in-chief of *Earth and Planetary Science Letters* since 2018, and he served as co-Editor-in-chief of *Tectonophysics* from 2014 to 2018.

Jean-Philippe Avouac has published more than 270 articles in international peer-reviewed journals ([Google scholar profile](#), [Scopus Profile](#)) and holds patents in image processing.

Jean-Philippe Avouac also has non-academic experience. He has been a member of the Technology Advisory Committee of BP from 2014 to 2018. During his employment by the Commissariat à l'Énergie Atomique (France) he conducted and supervised seismic hazard studies for nuclear facilities in France.

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Curriculum Vitae**Education**

| | | |
|------|-------------------|--|
| 1987 | M.S., (Ingénieur) | Ecole Polytechnique, France |
| 1991 | PhD, | Institut de Physique du Globe de Paris, France |

Appointments

2018-pres.: Director, NSF center for [Geomechanics and the Mitigation of Geohazards](#),
2023-pres : Associate director, [Center for Autonomous Systems and Technologies](#),
2015-pres.: Earle C. Anthony Professor of Geology, Professor of Mechanical and Civil Engineering, California Institute of Technology
2014-2018: Technology Advisory Council, BP
2014-2015: BP-McKenzie Professor of Earth Sciences, University of Cambridge
2012-2014: Earle C. Anthony Professor of Geology, GPS Division, California Institute of Technology
2004-2014: Director of the Caltech Tectonics Observatory
2003-2012: Professor of Geology, GPS Division, California Institute of Technology
1999-2003: Visiting Scientist, Ecole Normale Supérieure, Paris, France.
1992-2002: Laboratoire de Géophysique, Département Analyse et Surveillance de l'Environnement, Commissariat à l'Energie Atomique, France

Membership of professional societies

American Geophysical Union, Seismological Society of America, Geological Society of America, European Geophysical Union, American Association for the Advancement of Science
Institute of Electrical and Electronics Engineers, Committee for Space Research,

Honors and awards

Elected to National Academy of Sciences (2025)
Gaspard Monge invited professor, Ecole Polytechnique, Palaiseau, France (2019).
Editors' Citation for Excellence in Refereeing for *Geophysical Research Letters* (2015)
Wolfson Merit Award of the Royal Society, UK (2014)
Elected Fellow of the American Geophysical Union (2014)
Editorial Excellence Recognition Award, *Earth and Planetary Science Letters* (2013)
Alexander von Humboldt Foundation, Senior Scientist Award (2010)
Editors' Citation for Excellence in Refereeing for *J. of Geophys. Res. -Solid Earth* (2008)'
Birch Lecture, American Geophysical Union (2007)
Editors' Citation for Excellence in Refereeing for *J. of Geophys. Res. -Solid Earth* (2007)
Geol. Soc. of America Best Paper Award (2003)
E. A. Flinn Award of the International Lithosphere Program (1993)

Editorial Activities

Co-editor-in-chief, *Earth and Planetary Sciences Letters* (2018-present)
Co-editor-in-chief, *Tectonophysics*, (2014-2018)
Editorial Advisory Board, *Earth and Planetary Sciences Letters* (2005-2018)
Editorial Advisory Board, *Terrestrial, Atmospheric and Oceanic Sciences* (2011-present)

Selection of service Activities

Elected to the Board of Faculty, Caltech (2024-present)
President, Tectonophysics section, American Geophysical Union (2021-2022)
European Research Council, PE10, Starting Grant panel 2023.
Board of Directors, Southern California Earthquake Center (2016-2022)
European Research Council, PE10, Starting Grant panel 2021.
President, Science Advisory Board, Earth Observatory of Singapore (2020)
President, HCCERES Evaluation Committee, Institut des Sciences de la Terre, Grenoble, (2019)
Elected to the Board of Faculty, Caltech (2012-2015)
Review committee, Earth Science Department at Univ. of California, Santa Barbara (2013)
Academic Policies Committee, Caltech (2011-2014)
Oral Examination Core Committee, Geological and Planetary Sciences, Caltech (2012-13)
Visiting committee, Earth Observatory of Singapore (2012)
Evaluation Committee (AERES) of Agence Nationale de la Recherche, France (2012)
Advisory Committee, Institute of Earth Sciences, Academia Sinica, Taiwan (2009, 2011)
Advisory Committee, Centre for the Observation and Modeling of Earthquakes, Volcanoes and Tectonics, National center for Earth Observation, UK (2011)
Evaluation Committee (AERES), Institut des Sciences de la Terre, ISTERRE, Université Joseph Fourier, Grenoble, (2010)
Evaluation Committee (AERES), Institut de Physique du Globe de Paris (2009)

PhD Students (advised and co-advised)

Guanli Wang (2021-present); Hussain Alqattan (2021-present); Hojjat Kaveh (2021-present). Taeho Kim (2019-2024); Krittanon (Pond) Sirorattanakul (2018-2024); Stacy Laroche (2016-2022); Kevin Roback (2016-2022); Jonny Smith (2015-2019); Sylvain Michel (2014- 2018); Chris Rollins (2012-2017), Vicky Stevens (2011-2016), Luca Malatesta (2011-2016); Thomas Ader (2009-2013); Marion Thomas (2009-2013), Nina Lin (2008-2013), Steve Kidder (2006-2011); Sebastien Leprince (2003-2008), Ozgun Konca (2004-2008), Pierre Bettinelli (2002-2007); Beatrice Puysegur (2002-2006); Martine Simoes (2002-2005); Laurent Bollinger (1998-2002); Blanche Poisson (1998-2002); Yann Klinger (1994-1998); Jérôme Lavé (1993-1997); Benoit Lorne (1993-1996); Rémi Michel (1993-1997).

Postdoctoral Scholars (advised and co-advised)

Jinhui Cheng (2025-present); Alexis Saez (2024-present); Mateo Acosta (2020-present); Chloé Daudon (2020-2024) Kyungjae Im (2019-2023); Kejie Chen (2018-2019); Lingling Ye (2016-2017), Adriano Gualandi (2015-2017), Mortaza Pirouz (2014-2017), Pietro Sternai (2014-2016), Nadaya Cubas (2010-2013), Sylvain Barbot (2010-2012), James Hollingsworth (2009-2012), Alex Copley (2009-2010), Anthony Sladen (2007-2010), Itai Haviv (2008-2010), Mohammed Chlieh (2004-2007), Mathieu Daeron (2005), Frederick Herman (2005-2007), Hugo Perfettini (2002-2003); Stéphane Dominguez (2000-2001); Rodolphe Cattin (1998-1999); Jean-Bernard de Chabaliere (1995-1996).