

Short Curriculum Vitae: Isabella Velicogna

Professor, Department of Earth System Science, University of California, Irvine
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Education:

1995	B.S., Physics	University of Trieste, Italy
1995	M.S., Physics	University of Trieste, Italy
1999	Ph.D. Engineering (Geodynamics)	University of Trieste, Italy
1999-2001	Postdoc, Physics (Geodesy, Geophysics)	University of Colorado, Boulder

Selected Professional Positions:

2016 -	Professor, Department of Earth System Science, University of California, Irvine
2018-2021	Associate Dean of Graduate Studies, Equity and Inclusion, School of Physical Sciences, University of California, Irvine (UCI)
2015-2018	Equity Advisor, School of Physical Sciences, UCI
2012-2016	Associate Professor, Department of Earth System Sciences, UCI
2007-2012	Assistant Professor, Department of Earth System Sciences, UCI
2018 -	Visiting Scientist, Dipartimento Politecnico di Ingegneria e Architettura, Università degli Studi di Udine, Italy
2007 -	Scientist Faculty Part-time, Division 32, NASA's Jet Propulsion Laboratory, Pasadena, CA
2006-2007	Senior Scientist, Division 32, NASA's Jet Propulsion Laboratory, Pasadena, CA

Selected Honors:

2024	Fellow, American Meteorological Society (AMS)
2022	Fellow, American Association for the Advancement of Science
2020	Fellow, American Geophysical Union
2020	Joanne Simpson Medal, American Geophysical Union
2020	John Nye Lecture, American Geophysical Union
2020	Thomson Reuters Highly Cited Researchers in Geosciences
2019	Thomson Reuters Highly Cited Researchers in Geosciences
2018	Thomson Reuters Highly Cited Researchers in Geosciences
2017	Vening Meinesz Medal, European Geoscience Union (for distinguished research in geodesy)
2016	Thomson Reuters Highly Cited Researchers in Geosciences
2015	Thomson Reuters Highly Cited Researchers in Geosciences
2015	Kavli Fellow, U.S. National Academy of Science
2015	Award for Excellence in Undergraduate Education, UCI School of Physical Sciences
2013	NASA Group Achievement Award, Ice Mass Balance Intercomparison Exercise Team
2008	Kavli Fellow, U.S. National Academy of Science
2006	Award for Outstanding Scientific Achievement, NASA

Research Contributions:

Professor Velicogna uses novel geophysical methods and satellite remote sensing techniques to study physical processes governing ice sheet and high mountain glacier mass balance, and high-latitude regions' hydrologic cycles, emphasizing time-variable gravity from the Gravity Recovery and Climate Experiment (GRACE) missions and other geophysical data. She studies the impact of melting ice sheets, glaciers, and ice caps on sea level rise's global and regional patterns using geophysical numerical methods. She also studies ecosystem response to climate change and variability in terrestrial water storage combining multiple remote sensing techniques and climate model outputs. Finally, she investigates Seasonal to Sub-seasonal (S2S) forecasts by benchmarking climate model performances of key hydrometeorological variables based on end-user-specific objectives against observations for specific regions (e.g., California) and improving regional S2S forecasts by personalizing a foundational AI climate model based on hyper-specific local knowledge and datasets.

Selected Publications:

Thomson-Reuters Web of Science Researcher ID: R-5561-2018. H-index: 59 (GS), 26,451 citations; 39 papers cited 100+ times, 10 cited 700+ times, 108 publications, 2,220 citations/year.

1. M Rodell, **I Velicogna**, JS Famiglietti, 2009. Satellite-based estimates of groundwater depletion in India. *Nature* 460 (7258), 999-1002.
2. A Shepherd, ER Ivins, G A, VR Barletta, MJ Bentley, S Bettadpur, et al., 2012. A reconciled estimate of ice-sheet mass balance. *Science* 338 (6111), 1183-1189.
3. E Rignot, **I Velicogna**, MR van den Broeke, A Monaghan, JTM Lenaerts. 2011. Acceleration of the contribution of the Greenland and Antarctic ice sheets to sea level rise. *Geophysical research letters* 38 (5).
4. BD Tapley, MM Watkins, F Flechtner, C Reigber, S Bettadpur, M Rodell, et al. 2019. Contributions of GRACE to understanding climate change. *Nature climate change* 9 (5), 358-369.
5. J Wahr, S Swenson, V Zlotnicki, **I Velicogna**. 2004. Time-variable gravity from GRACE: First results. *Geophysical Research Letters* 31 (11).

Selected Service:

- 2024 - Editorial Board/Advisory Committee, ARC Geophysical Research
- 2023 - Appointed to National Academies of Sciences committee on Midterm Assessment of the 2018 Decadal Survey for Earth Science and Applications from Space
- 2022 - Appointed Chair of Electorate Nominating Committee, Atmospheric and Hydrospheric Sciences, Annual Election of AAAS Officers
- 2021 - Science Team Member, NASA Ice, Cloud, and land Elevation Satellite 2 (ICESat-2) mission
- 2021 Spring Consulted with the House Science, Space, and Technology Committee, the Space and Aeronautics Subcommittee, on NASA's role in climate science
- 2021 - Member of the Executive Editorial Board, of Environmental Research: Climate (ERCL), IOP (Institute of Physics) Publishing
- 2019-2020 Invited expert speaker, National Academies of Sciences workshop on Groundwater Recharge and Flow: Approaches and Challenges for Monitoring and Modeling Using Remotely Sensed Data
- 2019-2022 Editor *Geosciences*, MDPI