Saeid Aminjafari

Ph.D. in Hydro-Geodesy

Affiliations	Department of Physical Geography, Stockholm University Bolin Centre for Climate Research, Stockholm University
General info	Date of Birth: 22 Jan 1988 Languages: English (C1), Persian (native), Swedish (B1), Arabic (B1)
Address	SE-106 91, Stockholm, Sweden
Email(s)	saeed.aminjafari@natgeo.su.se saeed.aminjafari@gmail.com
Other info	+46 (0)76 558 7750 https://saeid-aminjafari.github.io https://www.su.se/english/profiles/saam7695 0000-0003-0146-423X linkedin.com/in/saeid-aminjafari-76756652 researchgate.net/profile/Saeid-Aminjafari @AminjafariSaeed

Education & Research

2019 – 2023	**Ph.D. in Hydro-Geodesy** **Department of Physical Geography, Stockholm University, Sweden.** Thesis title: Monitoring Water Availability in Northern Inland Waters from Space, available on DiVA - I used Landsat images and maximum likelihood classification to quantify water occurrence and its changes in the Selenga River Delta. I used hydroclimatic data such as runoff, temperature, suspended sediment concentration, and lake water level to understand the drivers of the change in surface water occurrence. - I developed the InSAR methodology to quantify water levels in Swedish lakes. - I studied changes in a large set of lakes in Sweden and answered the questions regarding those changes and their drivers. I assessed the impact of human regulation (such as damming for hydropower, mining, irrigation, and transportation canals) on changes in lake water levels. - I also taught hydrology courses (such as advanced hydrology and Water and Land Risk Assessment) and mentored Ph.D. and master's students. ***Skills:*** *Hydrology · Remote Sensing · Earth Science · Geographic Information Systems (GIS) · Hydrogeodesy · InSAR · Altimetry · SAR . Python & MATLAB programming . Machine Learning*
2011 - 2014	**M.Sc. in Marine Geodesy** **School of Surveying and Geospatial Engineering, University of Tehran, Iran.** - Tidal modelling - Bathymetry & geostrophic currents - Advanced Global Positioning System - Monitoring embankment dam deformation with InSAR ***Skills:*** *Remote Sensing · Hydrography . Bathymetry . Geographic Information Systems (GIS) · InSAR · MATLAB & Python Programming Languages*

2006 - 2010	**B.Sc. in Geomatics** **Tafresh University, Tafresh, Iran.**

Teaching & Supervision

2020 - 2022	**Advanced Hydrology 7.5 credits (Stockholm University)** Teacher assistant in Hydro-Geodesy. In this module, I taught students how to generate interferograms and interpret the fringe patterns relating to hydrologic connectivity and water level changes. I used ISCE software in this course.
2021 - 2021	**Water Management and Pollution, 15 credits (Stockholm University)** Teacher assistant in optimization. In this module, students learned how to model the most efficient way to mitigate pollutants' flow in a basin. I used the Pyomo model in this course.
2021 - 2022	**Co-supervision of two master's students in Hydro-Geodesy (Stockholm University)**
2019 - 2021	**Tellus I – Physical Geography, 15 credits (Stockholm University)** The course deals with hydrology, mass movements, rivers and flooding, oceans, coastlines, groundwater, the atmosphere and climate, arid regions, geomorphology, Quaternary geology, and global changes.

Training & Conferences

2021	Geo-computation and machine learning for environmental applications, 7.5 credits (Bolin Centre, Stockholm University)
2020	Course: "Scientific Writing in English" 1 credit (Stockholm University)
2019	COMET InSAR training workshop (University of Leeds, UK)
2013 - 2022	Active participation in many international conferences such as the ESA Living Planet Symposium (2013 & 2022), EGU (2020-2022), AGU (2021-2022), Swedish Climate Symposium (2022), and Baltic Sea Science Congress (2019 & 2021 & 2023).

Professional Experience

2018 - 2019	**Geophysical marine surveyor, data processor (multibeam echosounder), and cartographer at SEA WORK SURVEY (SWS) EST, Tehran, Iran.** Geophysical surveying . Multibeam echosounder data processing . Seafloor mapping and cartography . Navigating drilling rigs . Debris removal . Writing Daily Progress Reports (DPRs) . Writing industry proposals
2015 - 2017	**Researcher and instructor at Hydrography and Tidal Affairs, National Cartographic Centre of Iran (NCC).** ***Skills:*** *Satellite Altimetry · Tidal modelling · Oceanography . Geostrophic Currents . Bathymetry*

Publications: *https://saeid-aminjafari.github.io/publications*

Aminjafari, S., Frappart, F., Papa, F., Brown, I., and Jaramillo, F., (**2024**, Accepted and in Elsevier's production). Enhancing the Temporal Resolution of Water Levels from Altimetry Using D-InSAR: A Case Study of 10 Swedish Lakes. Science of Remote Sensing, https://dx.doi.org/10.2139/ssrn.4883462

Aminjafari, **S**., Brown, I., and Jaramillo, F., **2024**. Evaluating D-InSAR Performance to Detect Small Water Level Fluctuations in Two Small Lakes in Sweden. Environmental Research Communications, https://doi.org/10.1088/2515-7620/ad7701

Aminjafari, S., Brown, I., Frappart, F., Papa, F., Blarel F., Vahidi Mayamey, F., and Jaramillo, F., **2024**. Distinctive Patterns of Water Level Change in Swedish Lakes Driven by Climate and Human Regulation. Water Resources Research, https://doi.org/10.1029/2023WR036160

Aminjafari, S., Brown, I., Vahidi Mayamey, F., and Jaramillo, F., **2024**. Tracking Centimeter-Scale Water Level Changes in Swedish Lakes Using D-InSAR. Water Resources Research, https://doi.org/10.1029/2022WR034290

Jaramillo, F., **Aminjafari, S**., Castellazzi, P., et al., (**2024, Accepted**). The Potential of Hydrogeodesy to Address Water-related and Sustainability Challenges. Water Resources Research. DOI will be made available soon.

Aminjafari, S., Brown, I., Chalov, S., Simard, M., Lane, C.R., Jarsjö, J., Darvishi, M. and Jaramillo, F., **2021**. Drivers and extent of surface water occurrence in the Selenga River Delta, Russia. Journal of Hydrology: Regional Studies, 38, p.100945. https://doi.org/10.1016/j.ejrh.2021.100945

Darvishi, M., Destouni, G., **Aminjafari, S.** and Jaramillo, F., **2021**. Multi-Sensor InSAR Assessment of Ground Deformations around Lake Mead and Its Relation to Water Level Changes. Remote Sensing, 13(3), p.406. https://doi.org/10.3390/rs13030406

Liu, D., Wang, X., **Aminjafari, S**., Yang, W., Cui, B., Yan, S., Zhang, Y., Zhu, J. and Jaramillo, F., **2020**. Using InSAR to identify hydrological connectivity and barriers in a highly fragmented wetland. Hydrological Processes, 34(23), pp.4417-4430. https://doi.org/10.1002/hyp.13899

Soltanpour, A., Pirooznia, M., **Aminjafari, S**. and Zareian, P., **2018**. Persian Gulf and Oman sea tide modeling using satellite altimetry and tide gauge data (TM-IR01). Marine Georesources & Geotechnology, 36(6), pp.677-687. https://doi.org/10.1080/1064119X.2017.1366608

Aminjafari, S., **2017**. Monitoring of Masjed-Soleiman embankment dam's deformation using a combination of Interferometric Synthetic Aperture Radar (InSAR) and finite element modeling. Geodesy and Cartography, 43(1), pp.14-21. https://doi.org/10.3846/20296991.2017.1299842

Reviewer for Journals

2023-2024	AGU - Water Resources Research (3), Geophysical Research Letters (1), Earth and Space Science (1)
2023	Elsevier - Advances in Water Resources (1)

2023	IEEE - Geoscience and Remote Sensing Letters (1)
2022	Elsevier - Journal of Hydrology: Regional Studies (1)
2021	Elsevier - Science of the Total Environment (1)

Grants

Travel grant: Donation scholarship, 600 €
Bolin Centre Seed-money Research Grant, 5000 €
Alice Wallenbergs Stipendship 600 €
Bolin Centre conference participation grant, 1000 €

References

Will be gladly sent upon request.