Saeid Aminjafari

Ph.D. Candidate in Hydro-Geodesy

Affiliation(s)	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)
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Education & Research

2019 – 2023	**Ph.D. candidate in Hydro-Geodesy** **Department of Physical Geography, Stockholm University, Sweden.** Thesis title (defense on October 12th 2023): Monitoring Water Availability in Northern Inland Waters from Space, available on DiVA. • Water level estimation in lakes and wetlands using D-InSAR, Radar and laser altimetry, and the combination of both • Hydrologic connectivity and water occurrence in deltas and wetlands using Radar and optical remote sensing
2011 - 2014	**M.Sc. in Marine Geodesy** **School of Surveying and Geospatial Engineering, University of Tehran, Iran.** Master's thesis: Dam Deformation Monitoring and Modeling Using Interferometric Synthetic Aperture Radar (InSAR) and Finite Element Analysis (FEA)
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.
2013 - 2018	**InSAR (Doris and StaMPS software), Oceanography, Field surveying operations, Route surveying, MATLAB programming for geomatics students, (National Cartographic Centre of Iran (NCC), Tafresh University, & Daneshpajoohan Institute of higher education)**

Training & Conferences

2021	Pedagogical training: "Professional development course 1, Teaching and Learning" 7.5 credits (Centre for the Advancement of University Teaching, Stockholm University)
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 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.** I worked on offshore rigs, platforms, and other vessels to perform hydrographic surveying.
2015 - 2017	**Researcher and instructor at Hydrography and Tidal Affairs, National Cartographic Centre of Iran (NCC).** Investigating the Global Rise in Sea Level and Update on Iran's Height Datum Using Spectral Analysis of 26-Year Sea Surface Height Measurements

Publications (5 published + 4 under-review)

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

Aminjafari, S., Brown, I., Frappart, F., Papa, F., and Jaramillo, F., (under-review). Improved Temporal Resolution of Altimetry-Derived Lake Water Levels with D-InSAR.

Aminjafari, S., Brown, I., Vahidi Mayamey, F., and Jaramillo, F., (under- review). Water Level Estimation in Northern Lakes With D-InSAR.

Aminjafari, S., Brown, I., and Jaramillo, F., (under- review). Evaluating D-InSAR Performance to Detect Small Water Level Fluctuations in Lakes.

Aminjafari, S., Brown, I., Frappart, F., Papa, F., Blarel F., Vahidi Mayamey, F., and Jaramillo, F., (under-review.). Distinctive Patterns of Water Level Change in Nordic Lakes Driven by Climate and Human Regulation.

Reviewer for Journals

2023	Elsevier - Advances in Water Resources (1)
2023	IEEE - Geoscience and Remote Sensing Letters (1)
2023	AGU - Geophysical Research Letters (1)
2022	Elsevier - Journal of Hydrology: Regional Studies (1)
2021	Elsevier - Science of the Total Environment (1)

Grants

2021	Travel grant: Donation scholarship, 600 €
2020	Bolin Centre Seed-money Research Grant, 5000 €
2020	Alice Wallenbergs Stipendship 600 €
2019 - 2022	Bolin Centre conference participation grant, 1000 €

References

Prof. Fernando Jaramillo (supervisor, Stockholm)	Email: *fernando.jaramillo@natgeo.su.se* Phone: +46 70 071 12 84
Prof. Ian A. Brown (co-supervisor, Stockholm)	Email: *ian.brown@natgeo.su.se* Phone: +46 8 16 39 84
Dr. Navid Ghajarnia (Bureau of Meteorology, Melbourne)	Email: *navid.ghajarnia@bom.gov.au* Phone: +61 435 752 603
Dr. Samaneh Seifollahi (Bureau of Meteorology, Melbourne)	Email: *samaneh.seifollahi@bom.gov.au* Phone: +61 435 752 468