

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 (submitted in June 2023): Monitoring Water Level Availability in Northern Lakes and Deltas from Space Research topics: <ul style="list-style-type: none"> 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), Swedish Climate Symposium (2022), and Baltic Sea Science Congress (2019 & 2021).

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.). Assessing the Effects of Regulation on Swedish Lake Water Levels with Satellite Altimetry.

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)	Email: fernando.jaramillo@natgeo.su.se Phone: +46 70 071 12 84
Prof. Ian A. Brown (co-supervisor)	Email: ian.brown@natgeo.su.se Phone: +46 8 16 39 84
Dr. Sina Khatami (Uppsala University)	Email: sina.khatami@geo.uu.se Phone: +46 76 112 86 76 & +61 420 757 477