

CURRICULUM VITAE

Contact Information:

Name: Amir Salaree

Office Address: Department of Earth and Environmental Sciences,
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YouTube: www.youtube.com/AmirSalaree

Twitter: @amirsalaree

Research Interests:

- Earthquake source
- Tsunamis
- Seismo-Acoustics
- Earthquake-induced landslides
- Natural hazard analysis
- Data visualization theory

Current Affiliation:

2022 – present

Research Fellow,
Department of Earth and Environmental Sciences, University of Michigan,
Ann Arbor, MI, USA
(PI: Zack Spica)

Past Employment:

Jan 2023 – Apr 2023

Lecturer,
Department of Earth and Environmental Sciences, University of Michigan,
Ann Arbor, MI, USA

2019 – 2022

Postdoctoral Researcher,
Department of Earth and Environmental Sciences, University of Michigan,
Ann Arbor, MI, USA
(Advisor: Yihe Huang)

Education:

2019

PhD in Seismology,
Department of Earth and Planetary Sciences, Northwestern University,
Evanston, IL, USA
(Advisor: Emile A. Okal)

Dissertation Topic: *Theoretical and Computational Contributions to the Modeling of Global Tsunamis*

2014 **MSc** in Seismology,
Department of Earth and Planetary Sciences, Northwestern University,
Evanston, IL, USA

2011 **MSc** in Earthquake Seismology,
Institute of Geophysics, University of Tehran,
Tehran, Iran

MSc Dissertation Topic: *Study of Seismicity of Makran By Modeling the Earthquakes, Using Body-Wave Inversion*

2008 **BSc** in Solid States Physics,
Department of Physics, University of Tehran,
Tehran, Iran

Professional Memberships:

2020–present	Joint Task Force for SMART Cables (ITU/WMO/IOC)
2019–present	European Geophysical Union (EGU)
2016–present	Seismological Society of America (SSA)
2011–present	American Geophysical Union (AGU)
2010–present	Ocean Expert
2018–2019	National Association of Geoscience Teachers (NAGT)
2013–2014	European Association of Geoscientists and Engineers (EAGE)

Mentorship Experience:

2023–present	Yaolin Miao	University of Michigan
2022–2023	Maryam Kamalpour	University of Tehran

Journal Publications:

Manuscripts in Preparation:

Miao, Y., Spica, Z., Salaree, A., Kiwamu, N., Yamada, T., & Shinohara, M., 2023. Earthquake detection with ocean-bottom Distributed Acoustic Sensing, *J Geophys Res: Solid Earth*, [in prep]

Salaree, A. & Huang, Y., 2023. Back-arc tsunami hazard in the Gulf of Mexico from Oaxaca earthquakes, *AGU Advances*, [to be submitted]

Kamalpour, M. & Salaree, A., 2023. Teleseismic measurements of earthquake source slowness as a measure of near-field ground motion: Seismic hazard in Iran, *B Seismol Soc Am*, [in prep]

Salaree, A. & Okal, E. A., 2023. The response of the Persian Gulf to tsunamis from the deep Indian Ocean earthquakes, *Pure Appl. Geophys.*, [in prep]

Salaree, A., 2023. Cumulative ray-tracing of finite tsunami sources, *Nat. Hazards*, [in prep]

Published Articles:

- 2023 Salaree, A., Spica, Z., & Huang, Y., 2023. Solving a seismic mystery with the audio from a diver's camera: A case of shallow water T -waves in the Persian Gulf, *Geophys. Res. Lett.*, **50**, e2023GL104544, doi: 10.1029/2023GL104544
- Salaree, A. & Huang, Y., 2023. Excitation of back-arc tsunamis from megathrust ruptures: Theory and application to the Sea of Japan, *J Geophys Res: Solid Earth*, **128**(2), e2022JB024750
- Salaree, A., Howe, B. M., Huang, Y., Weinstein, S. A., & Sakya, A. E., 2023. A numerical study of SMART Cables potential in marine hazard early warning for the Sumatra and Java regions, *Pure Appl. Geophys.*, **180**(5), 1717–1749, doi: 10.1007/s00024-022-03004-0
- 2022 Rowe, C. A., Howe, B. M., Fouch, M. J., Angove, M., Aucan, J., Barnes, C. R., Barros, J., Bailiff, N., Becker, N. C., Carrilho, F., Fry, B., Jamelot, A., Janiszewski, H., Kong, L. S. L., Lentz, S., Luther, D. S., Marinaro, G., Matias, L. M., Sakya, A. E., Salaree, A., Thiele, T., Tilmann, F. J., von Hildebrandt-Andrade, C., Wallace, L., Weinstein, S. A., & Wilcock, W., 2022. SMART Cables observing the oceans and Earth, *Mar. Technol. Soc. J.*, **56**(5), 13–25
- Howe, B. M., Angove, M., Aucan, J., Barnes, C. R., Barros, J., Bayliff, N., Becker, N. C., Carrilho, F., Fouch, M., Fry, B., Jamelot, A., Janiszewski, H., Kong, L. S., Lentz, S., Luther, D. S., Marinaro, G., Matias, L. M., Rowe, C. A., Salaree, A., Sakya, A. E., Thiele, T., Tilmann, F. J., von Hillebrandt-Andrade, C., Wallace, L., Weinstein, S. A., & Wilcock, W., 2022. SMART subsea cables for observing the Earth and Ocean, mitigating environmental hazards, and supporting the blue economy, *Frontiers in Earth Science: Solid Earth Geophysics*, **9**, doi: 10.3389/feart.2021.775544
- 2021 Salaree, A., Huang, Y., Ramos, M., & Stein, S., 2021. Relative tsunami hazard from segments of Cascadia subduction zone for M_w 7.5-9.2 earthquakes, *Geophys. Res. Lett.*, **48**, e2021GL094174, doi: 10.1029/2021GL094174
- 2020 Salaree, A. & Okal, E. A., 2020a. Tsunami simulations along the Eastern African coast from mega-earthquake sources in the Indian Ocean, *Arab. J. Geosci.*, **13**(20), 13p
- Salaree, A. & Okal, E. A., 2020b. Effects of bathymetry complexity on tsunami propagation: A spherical harmonics approach, *Geophys. J. Intl.*, **223**(1), 632–647

- 2018 Salaree, A. & Okal, E. A., 2018. The “tsunami earthquake” of 13 April 1923 in Northern Kamchatka: Seismological and hydrodynamic investigations, *Pure Appl. Geophys.*, **175**(4), 1257–1285
- Salaree, A., Mansouri, R., & Okal, E. A., 2018. The intriguing tsunami of 19 March 2017 at Bandar Dayyer, Iran: Field survey & simulations, *Nat. Hazards*, **90**(3), 1277–1307
- 2017 Salaree, A., Stein, S., Saloor, N., & Elling, R., 2017. Turn your smartphone into a geophysics lab, *Astron. Geophys.*, **58**(6), 6.35–6.36
- 2016 Brooks, E. M., Diggory, M., Gomez, E., Salaree, A., Schmid, M., Saloor, N., & Stein, S., 2016. Should Fermi have secured his water heater?, *Seismol. Res. Lett.*, **87**(2A), 387–394
- 2015 Salaree, A. & Okal, E. A., 2015. Field survey and modelling of the Caspian Sea tsunami of 1990 June 20, *Geophys. J. Intl.*, **201**(2), 621–639

Dissertations:

- 2019 Salaree, A., 2019. Theoretical and computational contributions to the modeling of global tsunamis, *PhD Dissertation, Northwestern University*, 359p
- 2011 Salaree, A., 2011. Study of the seismicity of Makran by modeling the earthquakes using body-wave inversion, *Msc Dissertation, University of Tehran*, 232p

Talks & Presentations:

Invited Talks

- 2023 Salaree, A., 2023. Tsunamis in the Persian Gulf: Sources and hazard, *Department of Geophysics, College of Nano and Bio Science & Technology, Persian Gulf University, Bushehr*, [invited]
- 2022 Salaree, A., 2022. Mix & Match: Tsunamis and other natural hazards, *Geology Department, Washington & Lee University, Lexington, VA*, [invited]
- 2021 Okal, E. A. & Salaree, A., 2021. Evaluation of far-field tsunami risk from sources in the Indian Ocean, and preliminary report on the 2021 South Sandwich Islands earthquake and tsunami, *Far-field and Near-shore tsunamis on the South African coastline, CGS, National Science Councils, South Africa*, [invited]
- Salaree, A., 2021a. Tsunami hazard & the Indian Ocean: What have we learned? – What can we do?, *Department of Earth Sciences, Royal Holloway, University of London*, [invited]
- Salaree, A., 2021b. Waves of the far side: Tsunamis in the Gulf of Mexico from Pacific earthquakes, *EPSS Colloquium, Department of Earth, Planetary & Space Sciences, University of California, Los Angeles (UCLA)*, [invited]

- Salaree, A., 2021c. The curious case of unexpected tsunamis: A quest in nonlinearity, *UK International Geophysics & Tectonics Seminar*, [invited]
- 2020 Salaree, A., Huang, Y., Ramos, M., & Stein, S., 2020. Modeling future Cascadia tsunamis: Don't prepare only for the rarest and biggest one, *AGU Fall Meeting*, [invited]
- Salaree, A., 2020a. Tsunami hazard from Cascadia earthquakes: Fold for ace-in-the-hole?, *GYPSUM Seminar Series, Iowa State University*, [invited]
- Salaree, A., 2020b. Theoretical and computational contributions to the modeling of global tsunamis, *Smith Lecture, University of Michigan, Ann Arbor, MI*, [invited]
- 2019 Salaree, A. & Okal, E. A., 2019. Response of a basin to a tsunami incident through a small aperture: Application to the Strait of Hormuz, *Expert meeting for establishment of a regional working group and working process between NWIO Countries on risk knowledge, Muscat, Oman*, [invited]

Presentations

- 2024 Salaree, A., Miao, Y., Spica, Z., Nishida, K., Yamada, T., & Shinohara, M., 2024. Spatio-temporal fidelity of DAS arrays to compression seismic signals: Impacts on real-time source estimates, *SSA Annual Meeting, Anchorage, AK*, [submitted]
- 2023 Salaree, A., Spica, Z., Miao, Y., Nishida, K., Yamada, T., & Shinohara, M., 2023. Performance of DAS arrays in documenting compression/dilation seismic signals, *AGU Fall Meeting, San Francisco, CA*
- Salaree, A., 2023. Non-uniqueness dilemma in the Kahramanmaras tsunami source solutions at different frequencies: Hint for excitation by transient Rayleigh waves from a strike-slip rupture, *SSA Annual Meeting, San Juan, Puerto Rico*
- Salaree, A. & Spica, Z., 2023. Exploring the potential of low-cost hydrophones in constraining subsea faults and seismic early warning for the San Francisco Bay region, *SSA Annual Meeting, San Juan, Puerto Rico*
- Kamalpour, M. & Salaree, A., 2023. Revisiting seismic hazard in Iran: Role of stress drop in Peak Ground Acceleration in a zone of immature faulting, *SSA Annual Meeting, San Juan, Puerto Rico*
- Saloor, N. & Salaree, A., 2023. Source stress drop for continental collision zones: Deviation from textbook earthquake models, *SSA Annual Meeting, San Juan, Puerto Rico*
- 2022 Salaree, A., Spica, Z., Huang, Y., & Naderi-Beni, A., 2022. Application of divers' underwater videos in hazard warning: The 2022 earthquake sequence in the Persian Gulf region, *AGU Fall Meeting, Chicago, IL*
- Rowe, C. A., Howe, B. M., Angove, M., Aucan, J., Barnes, C. R., Barros, J., Bayliff, N., Becker, N. C., Carrilho, F., Fouch, M. J., Fry, B., Grossman, J., Janiszewski, H. A., Jamelot, A., Kong, L. S. L., Luther, D. S., Lenz, S. T., Marinaro, G., Marias, L. M. M., Salaree, A., Sakya, A. E., Thiele, T., Tilmann, F. J., von Hillebrandt-Andrade, C., Wallace, L. W., Weinstein, S., & Wilcock, W. S. D., 2022. An update on the SMART Cables initiative for observing the Ocean and Earth, *AGU Fall Meeting, Chicago, IL*

- Okal, E. A. & Salaree, A., 2022. World-wide simulation of ocean-coupled air waves generated by the 2022 volcanic explosion in Tonga, *SSA Annual Meeting, Bellevue, WA*
- 2021 Salaree, A. & Huang, Y., 2021. New metric for performance of DART arrays: Can we improve tsunami monitoring in Cascadia?, *AGU Fall Meeting*
- Ghobadi-Far, K., Han, S.-C., McCullough, C., Wiese, D. N., Ray, R., Sauber, J., Werth, S. W., Shirzaei, M., Shihora, L., Dobslaw, H., Razeghi, M., Salaree, A., & Okal, E. A., 2021. Observing transient, rapid mass changes in the Earth system with GRACE Follow-On laser ranging measurements, *AGU Fall Meeting*
- Howe, B. M., Aucan, J., Barros, J., Bayliff, N., Fouch, M., Kong, L., Lentz, S., Marinaro, G., Matias, L., Panayotou, K., Sakya, A., Salaree, A., von Hillebrandt-Andrade, C., Wallace, L., & Weinstein, S., 2021. SMART Cables observing the oceans and Earth, *Global Oceans, San Diego, CA*
- Salaree, A., Howe, B. M., & Huang, Y., 2021. Contribution of SMART Cables to earthquake and tsunami early warning in the Sumatra and Java regions, *SSA Annual Meeting*
- Salaree, A. & Huang, Y., 2021. Back-arc tsunami hazard in the Gulf of Mexico from Oaxaca earthquakes, *SSA Annual Meeting*
- Salaree, A., Huang, Y., Ramos, M., & Stein, S., 2021. Most hazardous segments of the Cascadia rupture: Challenging the worst-case scenario, *SSA Annual Meeting*
- 2020 Saloor, N., Salaree, A., & Huang, Y., 2020. Back-arc tsunami hazard in the Gulf of Mexico from Oaxaca earthquakes: Lessons from past events, *AGU Fall Meeting*
- Salaree, A., Huang, Y., & Ramos, M., 2020. Tsunami hazard in Cascadia from M7–9 earthquakes: Most hazardous segments of the rupture, *AGU Fall Meeting*
- Salaree, A. & Okal, E. A., 2020. Frequency response of the Persian Gulf to Makran tsunamis, *19th Iranian Geophysical Conference, Iranian Geophysical Society, Tehran, [submitted]*
- Salaree, A., Huang, Y., & Ramos, M., 2020. Tsunami hazard in Cascadia from $M = 7-9$ earthquake ruptures, *EGU General Assembly, Vienna*
- Salaree, A., 2020. Cascadia tsunamis: Segmented earthquake ruptures, *GTS Seminar, University of Michigan, Ann Arbor, MI*
- 2019 Salaree, A., 2019. Cascadia tsunami scenarios: An overview, *University of Michigan & Michigan State University Solid Earth Mini-Workshop, East Lansing*
- Ramos, M., Salaree, A., Li, D., Ulrich, T., Huang, Y., Gabriel, A.-A., Thomas, A., & Denolle, M., 2019. 2-D and 3-D dynamic earthquake simulations for the Cascadia megathrust, *Megathrust Modeling Workshop, Eugene, Oregon*
- Saloor, N., Okal, E. A., & Salaree, A., 2019. The origin of Gutenberg & Richter m_b formula: An update, *AGU Fall Meeting, San Francisco, USA*

- Okal, E. A., de Beer, C., Salaree, A., Visser, J., & Mansouri, R., 2019. Dwarskersbos, South Africa, and Bandar Dayyer, Iran: Surveys and simulations of two tsunamis of meteorological origin, *The First World Conference on Meteotsunamis, Split, Croatia*
- 2018 Salaree, A. & Okal, E. A., 2018. Ray-tracing of finite tsunami sources, *AGU Fall Meeting, Washington DC, USA*
- Saloor, N., Okal, E. A., & Salaree, A., 2018. On the origin of the distance-depth correction $Q(\Delta, h)$ of the m_b formula: An update, *AGU Fall Meeting, Washington DC, USA*
- Salaree, A., 2018. Tsunamis: Fight against time, *Seven Minutes of Scholarship, Northwestern University*
- Salaree, A., Mansouri, R., & Okal, E. A., 2018. Numerical modeling and field survey of the 17 March 2017 tsunami of Bandar Dayyer, Persian Gulf, *18th Iranian Geophysical Conference, Iranian Geophysical Society, Tehran*
- Salaree, A., 2018. Using smartphone technology in geoscience education, *TEACHx, Northwestern University*
- Salaree, A. & Okal, E. A., 2018. Streamline the wave forecast: Computing tsunamis for fictitious earthquakes in fake oceans, *Computational Research Day, Northwestern University*, doi: 10.21985/N2WX18
- Salaree, A., 2018. Tsunamis in fake oceans, *Computational Research Day, Northwestern University [Lightning Talk]*
- Salaree, A. & Okal, E. A., 2018. How much bathymetry resolution do we really need? A spherical harmonics expansion, *EGU General Assembly, Vienna*
- Okal, E. A., Salaree, A., & Mansouri, R., 2018. The Dayyer, Iran Gulf tsunami of 19 March 2017: A probable meteo-tsunami, *EGU General Assembly, Vienna*
- 2017 Salaree, A. & Okal, E. A., 2017. How perturbing ocean floor disturbs water, *AGU Fall Meeting, New Orleans, USA*
- Mansouri, R., Salaree, A., & Okal, E. A., 2017. The intriguing tsunami of 19 March 2017 in the Persian Gulf, *AGU Fall Meeting, New Orleans, USA*
- Stein, S., Elling, R., Salaree, A., & Wyssession, M. E., 2017. Unintentional comedy - errors in movies and educational material – as a teaching tool, *AGU Fall Meeting, New Orleans, USA*
- Salaree, A., Stein, S., Saloor, N., & Elling, R., 2017. Smartphones – the geophysics lab in your students’ pocket, *AGU Fall Meeting, New Orleans, USA*
- Stein, S., Elling, R., Salaree, A., & Wyssession, M. E., 2017. Unintentional comedy - errors in movies and educational material – as a teaching tool, *GSA Annual Meeting, Seattle, USA*
- 2016 Salaree, A. & Okal, E. A., 2016. The Ust’-Kamchatsk “tsunami earthquake” of 13 April 1923: A slow event and a probable landslide, *AGU Fall Meeting, San Francisco, USA*

- 2015 Salaree, A. & Okal, E. A., 2015. Ocean-bottom pressure signals as potential identifiers of tsunami earthquakes in the near field, *AGU Fall Meeting, San Francisco, USA*
- Brooks, E. M., Diggory, M., Gomez, E., Salaree, A., Schmid, M., Saloor, N., & Stein, S., 2015. Should Fermi have secured his water heater against earthquakes?, *GSA Annual Meeting, Baltimore, Maryland, USA*
- Salaree, A. & Okal, E. A., 2015. From OBS data: Acoustic signatures of tsunami earthquakes in the near-field, *Ocean Bottom Seismometer Symposium, Vancouver, Washington, USA*
- 2014 Salaree, A. & Okal, E. A., 2014. Field survey and simulation of the 1990 Rudbar earthquake tsunami along the Iranian coast of the Caspian Sea, *AGU Fall Meeting, San Francisco, USA*
- 2011 Salaree, A., Gheitanchi, M. R., Masihi, A., Shomali, Z. H., & Cheraghi, K., 2011. Study of the seismicity of Makran through the inversion of body-waves, *73rd EAGE Conference & Exhibition incorporating SPE EUROPEC, Vienna, Austria*
- 2010 Salaree, A., 2010. Studying the general trends of Makran seismicity, using waveform anomalies, *The 8th ASC General Assembly, Vietnam*
- Salaree, A., Hamed, A., & Gheitanchi, M. R., 2010. Modeling the 2005, $M_w = 6.0$ earthquake in Makran, using the inversion of body-waves, *The 8th ASC General Assembly, Vietnam*
- 2009 Salaree, A., 2009. Waveform anomalies in Makran deep-focus earthquakes, *5th International Earthquake Symposium, Kocaeli, Turkey*

Working Papers & Notes:

- 2021 Salaree, A., 2021a. DFETCH: Practice of DART data acquisition, *University of Michigan*
- Salaree, A., 2021b. BEAMER: Beamforming of tsunamis – User’s manual, *University of Michigan*
- 2019 Salaree, A., 2019a. Rayleigh wave displacement fields from finite sources, *University of Michigan*
- Salaree, A., 2019b. Tsunami Source Discretization (TSD), *University of Michigan*
- 2018 Salaree, A., 2018a. TsuNoise: Notes on tsunami entropy; how to sonify tsunamis, *Northwestern University*
- Salaree, A., 2018b. KagDom: A user’s manual, *Northwestern University*
- Salaree, A., 2018c. A user manual for Tsubox v2.0: A tsunami ray-tracing toolkit, *Northwestern University*
- 2016 Salaree, A., 2016a. An overview of catanim v1.0, *Northwestern University*

- Salaree, A., 2016b. Beginner's notes on fluid dynamics – the road to tsunamis, *Northwestern University*
- Salaree, A. & Saloor, N., 2016. A beginner's guide to seismic hazard in Iran (v1.5), *Northwestern University*
- 2015 Saloor, N. & Salaree, A., 2015. A beginner's guide to seismic hazard in Iran, *Northwestern University*
- 2013 Salaree, A., 2013. Caspian Sea tsunamis: Field survey – Gillan & Mazandaran Provinces of Iran in August 2012 (report), *Northwestern University*

Awards, Honors & Funds:

- 2023 UMPDA Conference Travel Award, *University of Michigan Postdoctoral Association* (**\$500**)
- 2020 EGU Higher Education Teaching Grant, *Committee on Education of the European Geosciences Union* (**€750**)
- 2018 AGU Data Visualization and Storytelling Competition Award, *NASA & American Geophysical Union* (**\$1250**)
- 2018 Graduate Service Award, *Department of Earth & Planetary Sciences, Northwestern University* (**\$200**)
- In recognition of substantial contributions to the academic and cultural life of the department in ways that go beyond the normal duties of a TA-ship or exam grader.*
- 2017 Marion Sloss Teaching Excellence Award, *Department of Earth & Planetary Sciences, Northwestern University* (**\$1000**)
- In recognition of outstanding participation as a TA, the care put into teaching, as well as the energy and enthusiasm brought to the classroom.*

Teaching Experience:

Education & Outreach Publications:

- 2018 Salaree, A., 2018. Using smartphone technology in geoscience education, *TEACHx, Northwestern University*
- 2017 Stein, S., Elling, R., Salaree, A., & Wysession, M. E., 2017. Unintentional comedy - errors in movies and educational material – as a teaching tool, *GSA Annual Meeting, Seattle, USA*
- 2017 Salaree, A., Stein, S., Saloor, N., & Elling, R., 2017. Turn your smartphone into a geophysics lab, *Astron. Geophys.*, **58**(6), 6.35–6.36

- 2017 Stein, S., Salaree, A., and Brooks, E., Teaching Assistantships: An opportunity, not a chore, *AGU Blogosphere*, Feb. 14, 2017
- 2017 Salaree, A., After Iran-Iraq earthquake, seismologists work to fill in fault map of the region, *The Conversation/Chicago Tribune*, Nov. 15, 2017

Teaching Awards:

- 2020 EGU Higher Education Teaching Grant, *Committee on Education of the European Geosciences Union*
- 2018 Graduate Service Award, *Department of Earth & Planetary Sciences, Northwestern University*
- 2017 Marion Sloss Teaching Excellence Award, *Department of Earth & Planetary Sciences, Northwestern University*

Teaching Certificates & Courses:

- 2018 Faculty Advising: What You Need to Know and How to Do It Well, *Center for the Integration of Research, Teaching, & Learning (CIRTL), Northwestern University*
- 2016–2017 Teaching Certificate Program, *Searle Center for Excellence in Teaching, Northwestern University*
- 2011 Teaching Excellence Workshops, New TA Conference, *Searle Center for Excellence in Teaching, Northwestern University*

Teaching Assistantship (Northwestern University):

Geological Hazards (<i>Emile Okal</i>):	Fall 2013, Spring 2015
Exploration of the Solar System (<i>Donna Jurdy</i>):	Spring 2015
Earth's Interior (<i>Suzan van der Lee</i>):	Winter 2013
Earth's Interior (<i>Seth Stein</i>):	Fall 2014, Fall 2015, Winter 2017 Fall 2017

Lab Instructor (Northwestern University):

General Physics Lab:	Spring 2018, Fall 2018
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Lecturer:***University of Michigan:***

The Physical World	Winter 2023
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Guest & Co-Lecturer:*University of Michigan:*

Introduction to GIS in the Earth Sciences	Fall 2023
Introduction to Oceanography	Winter 2020

Northwestern University:

Earthquakes and Tectonics	Fall 2018
Seismology and Earth Structure	Spring 2018
Global Tectonics	Spring 2015

Developed Software Packages:

2023	FetchTH:	Code bundle to bulk-compute rupture slowness for a catalog of events (automated data acquisition)
2021	RecSec:	Bundle to produce record sections and radiation pattern maps for WILBER data
2021	DFETCH:	Code bundle to acquire and process DART data
2020	Beamer:	Bundle for beamforming of tsunamis
2019	FRUN:	Bundle of codes and scripts to calculate and visualize Rayleigh wave displacement fields from finite ruptures using normal modes theory
	TSD:	Tsunami Source Discretization package
2018	TsuNoise:	Bundle of scripts & FORTRAN codes to sonify tsunami simulations using statistical entropy
	KagDom:	Set of programs to find the dominant tectonic trend of a region from the available catalog of focal geometries
	Tsubox v2.0:	Can be used to ray-trace complex tsunami sources
2017	METEO:	Finite-difference code to calculate meteotsunami amplitudes
2016	CATANIM:	Creates 4D movies of earthquake distribution in a given catalog
2015	SNRGAP:	Script package to create record gap logs (and movies) in seismic datasets using IRIS MUSTANG and similar services
2014	RESPSHELL:	Code package to experimentally analyze the behavior of instrument response curves in different frequency bands

Media:

- 2023 Thielen, J., Solving a Seismic Mystery with Diver’s Camera: An Interview with Dr. Amir Salaree, *Bits and Pieces, University of Michigan*, Sep. 25, 2023
- 2022 Koenig, L. A., Shallow waters trap “silent” tsunamis from volcanic landslides, *Temblor*, Mar. 1, 2022
- 2021 Ham, B., At Work: Amir Salaree, *Seismological Society of America*, Jul. 15, 2021
- 2018 Salaree, A., Tsunamis: Fight against Time, *Seven Minutes of Scholarship Symposium, Northwestern University*, Aug. 1, 2018
- 2017 Salaree, A., After Iran-Iraq earthquake, seismologists work to fill in fault map of the region, *The Conversation/Chicago Tribune*, Nov. 15, 2017
- 2017 Stein, S., Salaree, A., and Brooks, E., Teaching Assistantships: An opportunity, not a chore, *AGU Blogosphere*, Feb. 14, 2017

Certifications/Educational Courses:

- 2016–2017 Teaching Certificate Program, *Searle Center for Excellence in Teaching, Northwestern University*
- August 2015 IRIS-Earthscope USArray Data Processing and Analysis Short Course, *Indiana University, Bloomington*
- July 2015 CIDER 2015 Summer Program, “Solid Earth Dynamics and Climate – Mantle Interactions with the Hydrosphere & Carbosphere”, *U. C. Berkeley, Berkeley, CA*
- November 2011 Teaching Excellence Workshops, New TA Conference, *Searle Center for Excellence in Teaching, Northwestern University*
- October 2011 Mathematics in the Geosciences, *Northwestern University*
- October 2010 International “Preparedness and Awareness of Makran Tsunami Hazards” Field Workshop, *Iranian National Institute for Oceanography* (Joint certificate by UNESCO and INIO)
- May 2010 International “Preparedness and Awareness of Makran Tsunami Hazards” Workshop, *Iranian National Institute for Oceanography* (Joint certificate by UNESCO and INIO)
- 2009 Introduction to Seismological Software, Z. H. Shomali, *Institute of Geophysics, University of Tehran*
- 2004 English Senior Proficiency, Iran Language Institute (ILI)

Experiences/Responsibilities/Outreach:

2023	<i>Panelist:</i> Joint SMART Cables Workshop, <i>University of Hawai'i at Mānoa</i>
2021	<i>Lecturer:</i> Measurements in Earth Science, <i>Summer EarthCamp, University of Michigan</i>
2020	<i>Session Chair:</i> <u>U014</u> . How Can We Implement AGU's "Science for Solutions" to Address Societal Problems, <i>AGU Fall Meeting</i>
2020–	<i>Member:</i> Joint Task Force to investigate the use of submarine telecommunications cables for ocean and climate monitoring and disaster warning
Summer 2018	<i>Participant:</i> Ready, Set, Go (RSG) – Seven Minutes of Scholarship Symposium, <i>Northwestern University</i>
2011–2014	<i>Member:</i> Project EXCITE! to teach elementary school kids some basic concepts about earthquakes, Department of Earth and Planetary Sciences, <i>Northwestern University</i>
2008–2009	<i>Member:</i> Project to acquire fault slip rate using optical Moire technique [PI: M. Tavassoli], <i>University of Tehran</i>

Skills & Qualifications:

Computer Skills:

- Programming & scripting: [proficient] FORTRAN, Bash, L^AT_EX, Postscript; [familiar] C, Python, MATLAB, HTML
- Parallel & high performance computing: Slurm, OpenMP
- Tsunami simulation models
- Earthquake source simulation codes

Languages:

- English (fluent)
- Farsi (mother tongue)
- Arabic (Reading and Listening: excellent; Speaking: Fair)
- Italian (basic)