

# **SOLMAZ MOHADJER**

Department of Earth & Environmental Sciences  
University of Central Asia  
155 Qimatsho Imatshoev Street  
Khorog, 736000, Tajikistan

e-mail: [solmaz.mohadjer@ucentralasia.org](mailto:solmaz.mohadjer@ucentralasia.org)  
mobile: +49 (0)175 148 8182  
web: [www.solmazmohadjer.com](http://www.solmazmohadjer.com)

---

## **EDUCATION**

- Ph.D., Geosciences, University of Tübingen, Germany, 2019
- M.S., Geosciences, University of Montana, Missoula, USA, 2008
- B.S., Geological Sciences, University of Washington, Seattle, USA, 2004

## **CURRENT POSITION**

Assistant Professor, Earth & Environmental Sciences, University of Central Asia, Tajikistan, since Aug 2020

## **PREVIOUS POSITIONS**

- Assistant Professor, Earth & Environmental Sciences, University of Central Asia, Tajikistan (2020-present)
- Postdoctoral Associate, Geosciences, University of Tübingen, Germany, (2017 – 2020)
- Ph.D. Researcher, Geosciences, University of Tübingen, Germany, (2013 – 2016)
- Natural Hazard Risk Model Consultant, Focus Humanitarian Assistance, Kabul, Afghanistan, (2012/2013)
- Natural Hazard Scientist, Aga Khan Development Network, Dushanbe, Tajikistan, (2012)
- Program Director, Teachers Without Borders, Seattle, WA, U.S.A., (2009 – 2011)
- Graduate Research Assistant, University of Montana, Missoula, MT, U.S.A. (2006 – 2008)
- Geologist, United States Geological Survey, Anchorage, Alaska, U.S.A., (2004 – 2006)
- Project Coordinator, University of Washington's Pipeline Project, Seattle, WA, U.S.A., (2001 – 2004)

## **AWARDS AND HONORS**

- European Geosciences Union (EGU) Training School Grant, 2021
- EGU Higher Education Teaching Grant, 2020
- EGU Science-Policy Pairing Scheme Award, 2019
- International Symposium on Geo-Disaster Reduction (Kyrgyzstan) Best Presentation Award, 2019
- EGU Public Engagement Grant, 2016
- Innovation Fund Sustainable Development, University of Tübingen, 2016
- PARSA Community Foundation Grant (Earthquake Education in Central Asia), 2011
- Bertha Morton Scholarship, University of Montana, 2008-2009 academic year
- Space Grant Undergraduate Research Program, University of Washington, 2004
- Zesbaugh Scholarship, University of Washington, 2003-2004 academic year
- Lindenberg Mobility Grant for International Studies, University of Washington, 2003
- Mary Gates Leadership Grant, University of Washington, 2002-2003 academic year
- Society of Exploration Geophysics Foundation, 2001

## **SERVICE**

### **Editorial Service**

- Geoscience Communication, *Associate Editor* since Apr 2021

### **University of Central Asia**

- Member of Academic Integrity Committee, 2020 – present
- Member of Academic Appeal Committee, 2020 – present
- Organizer of Faculty Lecture Series, 2020 - 2021

### **European Geosciences Union**

- Program Committee, *Member* since 2021
- Outreach Committee, *Member* since 2020
- Higher Education Focus Group, *Member*, 2020
- Planet Press, *Science reviewer*, 2015-2019

### **University of Tübingen,**

- Geosciences PhD/Postdoc Representative, *Member*, 2020

### **Conference Session convener/panelist**

EGU, Vienna, Austria:

- Risk and Resilience at the Science-Policy-Practice Interface, convener, Apr 2021
- Science-policy pairing scheme: a panel discussion, panelist, Apr 2021
- Teacher-Scientist pairing scheme, convener, Apr 2021
- Science for Policy webinar, panelist, Apr 2020
- Debunking myths and fake news, panelist, Apr 2018
- Geoscience and the Sustainable Development Goals: Strategies for Eradicating Global Poverty, convener, Apr 2016
- Natural Hazards Education, Communication and Science-Policy-Practice Interface, convener, Apr 2015 & 2016
- Natural Hazard Teaching Demonstrations, convener, Apr 2015

### **Workshops organized**

- Climatic and Tectonic Natural Hazards in Central Asia (final workshop), Online, Sep 2020
- Climatic and Tectonic Natural Hazards in Central Asia (annual meeting), Tübingen, Germany, May 2019
- Remote Sensing, GFZ Potsdam, Germany, Apr 2014

## **PRESENTATIONS** (\*invited)

### **Symposia and Conference Lectures**

1. American Geophysical Union, Dec 2020, "Along-strike variations in cosmogenic derived denudation rates in the Western Tian Shan, Tajikistan"\*
2. European Geosciences Union, Apr 2020, "How can natural hazard scientists enhance their contribution to building sustainable and resilient societies?"
3. European Geosciences Union, Apr 2020, "Paired teaching approach to earthquake education: a cross-country comparison between Dushanbe, Tajikistan and London, United Kingdom"
4. EU Parliament, Belgium, Nov. 2019, "Impact of sea-level rise on coastal communities of the Baltic Sea"\*
5. International Symposium on Geo-Disaster Reduction, Kyrgyzstan, Aug 2019\*

- (i) "From research to action: Linking geohazards science and preparedness in schools" (keynote)
- (ii) "Geohazards Database for Central Asia"
- 6. European Geosciences Union, Austria, Apr 2019
  - (i) "Overcoming challenges in earthquake education: a case study from Tajikistan"
  - (ii) "Central Asia geohazards database"
- 7. European Geosciences Union, Austria, Apr 2018
  - (i) "Sensitivity of rockfall frequency-magnitude and wall retreat rates to observation"
  - (ii) "Using paired-teaching for earthquake education in schools"
- 8. European Geosciences Union, Austria, Apr 2016, "Comparison of fault slip rates: Insights from a Quaternary fault database for Central Asia"
- 9. Himalayan Karakorum Tibet Workshop and International Symposium on Tibetan Plateau, University of Tübingen, Germany, Aug 2013, "Lessons Learned: From advancements in Earth sciences to practical geohazards awareness"
- 10. European Science Education Research Association Conference, Turkey, Sep 2009, "Learning Science through Emergency Education"
- 11. American Geophysical Union, USA, Dec 2008, "Earthquake Education in Tajikistan: An assessment of perceptions, preparedness, and a pilot science-based curriculum"
- 12. American Geophysical Union, USA, May 2008, "Preliminary geodetic results from a sparse Central Asian geodetic network"

## Departmental Seminars and Colloquium

- 13. University of Central Asia Public Lecture Series (2020-2021)
  - (i) "What's the story with sand? Erosion in the Pamir and Tian Shan"
  - (ii) "Sensitivity of Rockfall frequency-magnitude and wall retreat rates to observation duration from TLS measurements"
- 14. University of Montana, USA, Oct 2020, "Career Paths in Geosciences"
- 15. Institute of Geology, Earthquake Engineering and Seismology Lectures, Tajikistan, Oct 2018, "Central Asia Quaternary fault database"
- 16. University of Liège, Geo-risk and Environment Colloquium, Belgium, Jun 2018, "Under pressure: Continental Collision and Earthquake Awareness"
- 17. University of Freiburg, Soil-Water-Rock, Earth and Environmental Sciences Colloquium, Germany, May 2016, "Comparison of fault slip rates from a Central Asia fault database"
- 18. Harvard Graduate School of Education Seminar Series, USA, Oct 2010, "The rise and role of NGOs in International Development"

## Community & Public Outreach Talks

- 19. American Geophysical Union, Dec 2021, "Long-term Impact: The Advocacy of Voices for Sciences"
- 20. Adventure of Science, Women and Glaciers in Central Asia, Online event, Nov 2021, "Preliminary results on erosion rates for large rivers in Western Tian Shan based on cosmogenic dating"
- 21. Geology for Global Development, Sep 2021, "Increasing Access to and Understanding of Geoscience"
- 22. UNESCO Geoparks in Central Asia: Territory for Sustainable Management of Geological Hazards, Water Resources and Tourism Development, Batken State University, Kyrgyzstan, Sep 2021, "Geohazards education and outreach: a case study from Tajikistan"
- 23. Volkshochschule Reutlingen, Germany, Apr 2021, "Caught in the web of climate change"
- 24. Royal Geographical Society, UK, Mar 2021, "Our hazardous Earth: a panel discussion"
- 25. University of Oxford's Grand Challenges Seminar, UK, May 2019, "Natural hazards: Preparing today to protect tomorrow"
- 26. UN Forum on Science, Technology and Innovation, USA, May 2019, "Earth Sciences Education for Resilient Communities in Central Asia"

27. TEDx Stuttgart, Germany, Sep 2016, "How to disarm earthquakes"\*
28. Geology for Global Development, UK, Oct 2016, "Translating geohazards research into potentially life-saving practices in Central Asia"\*
29. University of Cambridge, Sedgwick Club, UK, Nov 2011, "Earthquake Education in Central Asia"\*

## **TEACHING**

### **University courses**

- University of Central Asia: "*Environmental Impact & Risk Assessment*" (Spring 2021); "*Geodynamics & Structural Geology*" (Fall 2020, 2021); "*Introduction to Earth and Environmental Sciences*" (Fall 2021); "*Environmental Communication*" (guest lecturer, Fall 2021); "*Sediments, Stratigraphy, and Hydrocarbon*" (Fall 2020, Spring 2022); Geomorphology (Spring 2022)
- University of Tübingen: "*Applied Tectonics and Surface Processes*" (Fall 2016, co-developed course curriculum)
- University of Montana: "*Introduction to Geology Lab*" (academic year 2006-2007)
- University of Washington: "*Inner Pipeline Education Seminars*" (2001-2004, EDUC 401 seminars including: General Issues in K-12 Education; Refugee and Immigrant Communities; Math and Science in K-12 Education)

### **K-12 Professional Development Workshops**

- Aga Khan Development Network: *Earthquake Education* teacher training in 2 schools in Gujarat, India (2012)
- Teachers Without Borders: *Earthquake Education and Science Inquiry* teacher training workshops in Sichuan, China (3 multi-day workshops with >100 participants, 2009-2011), Port-au-Prince, Haiti (2011), Dushanbe/Khorog in Tajikistan (2011) and Shughnan in Afghanistan (2011)

## **SCIENCE-POLICY**

- American Geophysical Union's Voices for Science (policy track), *Selected participant*, 2021-2022
- Evidence for Policy School: Disaster Risk Management, European Commission's Joint Research Center, Italy, *Selected participant*, 2020
- European Union Parliament, Belgium, *Science Adviser to Finnish MEP Miapetra Kumpula-Natri*, 2019
- United Nations Forum on Science, Technology and Innovation, USA, *Delegate*, 2019

## **PUBLICATIONS**

### *Forthcoming*

1. Hall, C., Illingworth, S., Freilich, M., **Mohadjer, S.**, Reano, D., Roxy, M.K., Out-Larbi, F., Poku, C., Morales, J., Valencia, M., Veisaga, M., 2021 (*submitted*). Diversifying the Geosciences in Higher Education: A Manifesto for Change. *Geoscience Communication*
2. **Mohadjer, S.**, Ratschbacher, L., Ehlers, T.A., Abdulov, S., Gadoev, M., Oimahmadov, M., Schaller, M., 2021 (*in prep*). Along-strike variations in cosmogenic derived denudation rates in the Western Tian Shan, Tajikistan. *Geomorphology*

### *Peer-reviewed*

3. **Mohadjer, S.**, Mutz, S.G., Kemp, M., Gill, S., Ischuk, A., and Ehlers, T.A., 2021. Using paired teaching for earthquake education in schools. *Geoscience Communication*, 4, pp. 281-295

4. Gill, J.C., Taylor, F.E., Duncan, M., **Mohadjer, S.**, Budimir, M., and Mdala, H., 2021. How can natural hazard scientists enhance their contribution to building sustainable and resilient societies? *Natural Hazards and Earth System Sciences*, 21, pp. 187–202
5. **Mohadjer, S.**, Ehlers, T.A., Nettesheim, M., Ott, M.B., Glotzbach, C., and Drews, R., 2020. Temporal variations in rockfall and rockwall retreat rates in a deglaciated valley over the last 11 ka. *Geology*, v. 48(6), pp. 594-598
6. Perry, M., Kakar, N., Ischuk, A., Metzger, S., Bendick, R., Molnar, P., and **Mohadjer, S.**, 2018. Little Geodetic Evidence for Localized Indian Subduction in the Pamir-Hindu Kush of Central Asia, *Geophysical Research Letters*, v. 46, pp. 109-11
7. **Mohadjer, S.**, Ehlers, T.A., Bendick, R., Mutz, S.G., 2017. Review of GPS and Quaternary fault slip rates in the Himalaya-Tibet Orogen, *Earth-Science Reviews*, 174, pp. 39-52
8. Dietze, M., **Mohadjer, S.**, Turowski, J. M., Ehlers, T. A., and Hovius, N., 2017. Seismic monitoring of small alpine rockfalls - validity, precision and limitations, *Earth Surf. Dynam.* 5, 653-668
9. **Mohadjer, S.**, Ehlers, T. A., Bendick, R., Stübner, K., and Strube, T., A Quaternary fault database for central Asia, 2016, *Natural Hazards and Earth System Sciences*, 16, 529-542, doi:10.5194/nhess-16-529-2016.
10. Ischuk, A., Bendick, R., Rybin, A., Molnar, P., Khan, S.H., Kuzikov, S., **Mohadjer, S.**, Saydullaev, U., Ilyasova, Z., and Schelochkov, G., Kinematics of the Pamir and Hindu Kush regions from GPS geodesy, 2013, *Journal of Geophysical Research Letters- Solid Earth*, Vol. 118, 1-9 PP
11. **Mohadjer, S.**, Bendick, R., Ischuk, A., Kuzikov, S., Kostuk, A., Saydullaev, Lodi, S., Kakar, D.M., Wasy, A., Khan, M.A., Molnar, P., Bilham, R., and Zubovich, A.V., 2010, Partitioning of India-Eurasia convergence in the Pamir-Hindu Kush from GPS measurements, *Geophysical Research Letters*, Vol. 37, L04305, 6 PP.
12. **Mohadjer, S.**, Bendick, R., Halvorson, S., Saydullaev, U., Hojiboev, O., Stickler, C., Adam, Z., 2010, Earthquake Emergency Education in Dushanbe, Tajikistan, *Journal of Geoscience Education*, v. 58, n. 2, p. 86-94.

#### *USGS Open-File Reports*

13. Wilson, F.H., Blodgett, R.B., Blome, C.D., **Mohadjer, S.**, Preller, C.C., Klimasauskas, E.P., Gamble, B.M., and Coonrad, W.L., 2017, Bedrock geologic map of the northern Alaska Peninsula area, southwestern Alaska: U.S. Geological Survey Scientific Investigations Map 2942, pamphlet 43 p., scale 1:350,000, <https://pubs.er.usgs.gov/publication/sim2942>.
14. Wilson, F.H., Hults, C.P., **Mohadjer, S.**, Coonrad, W.L., 2013, Reconnaissance Geologic Map for the Kuskokwim Bay Region of Southwest Alaska, U.S. Geological Survey Scientific Investigations Map 3100, pamphlet 46 p., 1 sheet, scales 1:500,000, 1:300,000, 1:250,000, <https://pubs.usgs.gov/sim/3100/>.
15. Wilson, F.H., **Mohadjer, S.**, Labay, K.A., and Shew, N.B., 2006, Digital datasets for geologic map by Wilson, F.H., Blodgett, R.B., Blome, C.D., Mohadjer, S., Preller, C.C., Klimasauskas, E.P., Gamble, B.M., and Coonrad, W.L.: Preliminary Integrated Geologic Map Databases for the United States: Digital Data for the Reconnaissance Bedrock Geologic Map for the Northern Alaska Peninsula Area, Southwest Alaska: U.S. Geological Survey Open-File Report 2006-1303, on-line only. <https://pubs.er.usgs.gov/publication/ofr20061303>
16. Wilson, F.H., **Mohadjer, S.**, Labay, K.A., and Shew, N.B., 2006, Digital datasets for the geologic map by Wilson, F.H., Mohadjer, S., and Grey, D.M.: Preliminary Integrated Geologic Map Databases for the United States: Digital Data for the Reconnaissance Geologic Map of the Western Aleutian Islands, Alaska: U.S. Geological Survey Open-File Report 2006-1302, on-line only. <http://pubs.usgs.gov/of/2006/1302>

17. Wilson, F.H., **Mohadjer, S.**, and Grey, D.M., in press, Reconnaissance geologic map for the Western Aleutian Islands, Alaska: U.S. Geological Survey Scientific Investigations Map SIM-2941, 31 manuscript pages, various scales, in press (USGS Director's approval 1/3/08). (This is the formal publication to accompany the above Open-File Report).
18. Shew, N.B., Peterson, C.S., Grabman, N., **Mohadjer, S.**, Grunwald, D., Wilson, F.H., and Hults, C.K., 2006, Preliminary Integrated Geologic Map Databases for the United States: Digital Data for the Geology of Southwest Alaska by George E. Gehrels and Henry C. Berg: U.S. Geological Survey Open-File Report 2006-1290, on-line only. <http://pubs.usgs.gov/of/2006/1290/>

*Book*

19. Benoit, Peter. The Haitian Earthquake of 2010. Content Consultant, **Mohadjer, S.**, United Kingdom: Children's Press, 2011. Print.