Fabian E. Gruber

22.06.1982
Anna-Stainer-Knittel-Weg 3/5/4
6020 Innsbruck, Austria
+43 650 2587521
Fabian.Gruber@uibk.ac.at

Education

2002–2011 Diploma Study of Environmental Engineering and Water Management at the University of Natural Resources and Life Sciences (BOKU), Vienna

1993–2001 Linz International School Auhof, Linz: Austrian Matura (school leaving certificate, university entry qualification) and International Baccalaureate (IB)

1991–1993 Elementary School Linz-Pichling

1989–1991 Lincoln Elementary School Pittsburgh, PA, USA

Master thesis

title *The 2010 Attabad Landslide Dam Lake: modeling and prediction of Lake Outburst Floods*

supervisors Jean F. Schneider and Martin Mergili

Experience

Vocational

2013–current **Research Assistant**, *Institute of Geography, University of Innsbruck*, Innsbruck.
Research project:
- Terrain Classification of ALS Data to support Digital Soil Mapping
  - Landform delineation with statistical learning approaches and automated landform classifications
  - Field Soil Survey

2011–2013 **Research Assistant**, *Institue of Applied Geology, BOKU*, Vienna.
Research projects:
- Hazard assessment for an expected dam break flood in the Hunza Valley, Pakistan: A combination of GIS, Remote Sensing, and computer simulation techniques
  - Dam breach modeling with BREACH
  - Flood modeling with FLO-2D
- Poverty Alleviation through Mitigation of Integrated High-Mountain Risk (PAMIR)

2009–2010 **Project Assistant**, *Institue of Applied Geology, BOKU*, Vienna.
Research project:
- Remote Geohazards Assessment in Tajikistan (TajHaz)
  - Mapping geomorphological hazards and glacial lakes with remotely sensed data
  - Field survey in Tajikistan

Miscellaneous

2016–2017 **Lecturer**, *Institute of Geography, University of Innsbruck*, Innsbruck.
Exercises in Statistics (Übungen zur Statistik): Introduction to statistics with R for Bachelor's students

2010–2011 **Student tutor**, *University of Natural Resources and Life Sciences (BOKU)* , Vienna.
Tutoring for students in ArcGIS

2016–2017 Educational Leave (Bildungskarenz)

Languages

German **Native Language**

English **Fluent**

Spanish **Conversant**

French **Conversant**

Computer skills

Operating systems: Windows, Linux (Ubuntu)

Languages and scripts: R, Python

Geographic information systems: GRASS, SAGA, ARCGIS

Misc. software: GIMP, Inkscape, FLO-2D, RAMMS, ENVI-Sarscape

Interests

Horticulture: Participating in a communal gardening project

Traveling: Extensive traveling in Central and South America, Central Asia, Southeast Asia and Madagascar

Publications

Peer-reviewed journal articles and book chapters

[1] Gruber, F.E., Baruck, J., Geitner, C. (*submitted*): Algorithms vs. surveyors: a comparison of automated landform delineations and surveyed topographic positions from soil mapping in an Alpine environment. Geoderma.

[2] Geitner, C., Baruck, J., Freppaz, M., Godone, D., Grashey-Jansen, S., Gruber, F.E., Heinrich, K., Papritz, A., Simon, A., Stanchi, S., Traidl, R., von Albertini, N., Vrscaj, B. (*in press*). Soil and land use in the Alps – Challenges and examples of soil survey and soil data use to support sustainable development. In: Pereira, P., Brevik, E.C., Munoz-Rojas, M., Miller, B. (Eds.), Soil mapping and process modelling for sustainable land use management. Elsevier, Amsterdam.

[3] Baruck, J., Nestroy, O., Sartori, G., Baize, D., Traidl, R., Vrisaj, B., Bräm, E., Gruber, F.E., Heinrich, K., Geitner, C. (2016): Soil classification and mapping in the Alps: The current state and future challenges . Geoderma 264, Part B, 312–331.

[4] Zieher, T., Gruber, F.E.; Rutzinger, M.; Meißl, G.; Geitner, C.; Perzl, F. (2016): Data requirements for the assessment of shallow landslide susceptibility using logistic regression. In: Proceedings of the 12th International Symposium on Landslides - Landslides and Engineered Slopes. Experience, Theory and Practice. Napoli, Italy. CRC Press, S. 2139-2146.

[5] Gruber, F.E., Mergili, M. (2013): Regional-scale analysis of high-mountain multi-hazard and risk indicators in the Pamir (Tajikistan) with GRASS GIS. Natural Hazards and Earth System Sciences 13: 2779-2796.

[6] Schneider, J.F., Gruber, F., Mergili, M. (2013): Impact of large landslides, mitigation measures. In: Genevois, R., Prestininzi, A. (eds.): International Conference on Vajont - 1963-2013 - Thoughts and analyses after 50 years since the catastrophic landslide. Proceedings of the International Conference Vajont 1963-2013, Padua, Italy, October 8-10, 2013. Italian Journal of Engineering Geology and Environment - Book: 73-84.

[7] Schneider, J.F., Gruber, F.E., Mergili, M. (2013): Recent Cases and Geomorphic Evidence of Landslide-Dammed Lakes and Related Hazards in the Mountains of Central Asia. In: Margottini, C., Canuti, P., Sassa, K. (eds.): Landslide Science and Practice: Volume 6: Risk Assessment, Management and Mitigation (Proceedings of the 2nd World Landslide Forum, FAO Headquarters Rome, Italy, October 3-9, 2011): 57-64. Springer, Heidelberg, Berlin, New York

Selected conference abstracts and presentations

[8] Gruber, F.E., Baruck, J. und C. Geitner (2016): Joint analysis of parent material and topography to support soil survey – a case study from South Tyrol. – Jahrestagung der Österreichischen Forschungsgruppe für Geomorphologie und Umweltwandel und der Schweizerischen Gesellschaft für Geomorphologie 2016, Innsbruck (23.09.2016).

[9] Gruber F.E., Baruck, J., Simon, A. und C. Geitner (2015): Reliefklassifizierung für die Erstellung von Bodenkarten anhand von geomorphons (GRASS GIS).– Posterausstellung im Rahmen der Jahrestagung der Deutschen Bodenkundlichen Gesellschaft, München 2015, AG Digital Soil Mapping (09.09.2015).

[10] Gruber, F., Zieher, T., Rutzinger, M. und C. Geitner (2015): Geomorphons and structure metrics for the characterization of geomorphological landscape regions in Austria. European Geosciences Union General Assembly 2015 (EGU 2015), Wien (16.04.2015).

[11] Gruber, F.E., Baruck, J., Rutzinger, M. and C. Geitner (2014): Landform segmentation for digital soil mapping. – EGU General Assembly 2014 (28.04.-02.05.2014, Vienna (Austria)), Geophysical Research Abstracts Vol. 16, EGU2014-5644.