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Peer Reviewed Papers

Burjánek, J., Gassner-Stamm, G., Poggi, V., Moore, J. R., and Fäh, D. (2010). Ambient vibration analysis of an unstable mountain slope, *Geophys. J. int.* 180, 820-828.
doi:10.1111/j.1365-246X.2009.04451.x

Burjánek, J., Moore, J.R., Yugsi-Molina, F.X., Fäh, D. (2012). Instrumental evidence of normal mode rock slope vibration, *Geophys. J. Int.*, 188 (2), 559-569, doi: 10.1111/j.1365-246X.2011.05272.x.

Burjánek, J., Fäh, D., Dalguer, L., Laue, J., Lestuzzi, P., Baumann, C., Gassner-Stamm, G., Karbassi, A., Marin, A., Michel, C., Poggi, V., Roten D. (2012). Earthquake damage scenario in Visp (Switzerland): From active fault to building damage, Proceedings of the 15th World Conference on Earthquake Engineering, Lisbon, Portugal.

Castelli, M., C. Scavia, C. Bonnard, and L. Laloui (2010). Mechanics and velocity of large landslides. Preface of the special issue: Mechanics and velocity of large landslides. Guest Editors: C. Bonnard, L. Laloui, S. Scavia, M. Castelli. Special issue, *Engineering Geology*, 109, 1-4.

Deichmann, N. J. Clinton, S. Husen, B. Edwards, F. Haslinger, D. Faeh, D. Giardini, P. Kastli, U. Kradolfer, I. Marschall, S. Wiemer, 2010. Earthquakes in Switzerland and surrounding regions during 2009, *Swiss J. Geosciences*, DOI 10.1007/s00015-010-0039-8

Eisenbeiss, H. (2008). The Autonomous Mini Helicopter: A powerful Platform for Mobile Mapping. The International Archives of the Photogrammetry, *Remote Sensing and Spatial Information Sciences*. Vol. XXXVII. Part B1, Beijing, China, pp. 977-983.

Ferrari, A., Laloui, L. and Bonnard, Ch. (2009). Hydro-mechanical modelling of a natural slope affected by a multiple slip surface failure mechanism. *Computer Modeling in Engineering & Sciences* 52, 217-235

Fäh, D., and the COGEAR working group (2008). Coupled seismogenic hazard in alpine regions, *Proc .of the 14th World Conference on Earthquake Engineering*, Beijing.

Fäh, D., Moore, J., Burjanek, J., Iosifescu, I., Dalguer, L., Dupray, F., Michel, C., Woessner, J., Villiger, A., Laue, J., Marschall, I., Gischig, V., Loew, S., Marin, A., Gassner, G., Alvarez, S., Balderer, W., Kästli, P., Giardini, D., Iosifescu, C., Hurni, L., Lestuzzi, P., Karbassi, A., Baumann, C., Geiger, A., Ferrari, A., Laloui, L., Clinton, J., Deichmann, N., (2012). Coupled seismogenic geohazards in alpine regions. *Bulletino di Geofisica Teorica ed Applicata*, in press.

Fritsche, S. and D. Fäh. (2009). The 1946 Magnitude 6.1 Earthquake in the Valais: Site-Effects as Contributor to the Damage. *Swiss J. Geosci.*, 102, 423-439. doi:10.1007/s00015-009-1340-2

Fritsche, S., Fäh D., Schwarz-Zanetti, G. (2012). Historical intensity VIII earthquakes along the Rhone valley (Valais, Switzerland): primary and secondary effects. *Swiss J Geosci*, DOI 10.1007/s00015-012-0095-3.

Gischig, V., Loew, S., Kos, A., Moore, J.R., Raetzo, H., and Lemy, F. (2009). Identification of active release planes using ground-based differential InSAR at the Randa rock slope instability, Switzerland, *Natural Hazards and Earth System Sciences*, 9(6), 2027-2038.

Gischig, V., Amann, F., Moore, J. R., Loew, S., Eisenbeiss, H., Stempfhuber, W. (2010): Composite rock slope kinematics at the current Randa instability, Switzerland, based on remote sensing and numerical modeling, *Engineering Geology*, doi:10.1016/j.enggeo.2010.11.006.

Gischig, V., Moore, J. R., Evans, K. F., Amann, F., Loew, S. (2011): Thermo-mechanical forcing of deep rock slope deformation – Part 1: conceptual study of a simplified slope, *Journal for Geophysical Research*, 116, F04010, doi:10.1029/2011JF002006.

Gischig, V., Moore, J. R., Evans, K. F., Amann, F., Loew, S. (2011): Thermo-mechanical forcing of deep rock slope deformation – Part 2: the Randa rock slope instability, *Journal for Geophysical Research*, 116, F04011, doi:10.1029/2011JF002007.

Havenith, H.B., Fäh, D., Alvarez-Rubio, S., Roten D., (2008). Response spectra for the deep sediment-filled Rhône Valley in the Swiss Alps. *Soil Dynamics and Earthquake Engineering* 29, 17-38. doi:10.1016/j.soildyn.2008.01.016.

Klubertanz G., Laloui, L. and Vulliet, L. (2009). Identification of mechanisms for landslide type initiation of debris flows. *Engineering Geology* 109, 114-123.

Mautz R., Grimm D., Limpach P., Tilch S., Geiger A., 2010. Bestimmung der Fließgeschwindigkeiten von Blockgletschern. *Geomatik Schweiz*, Vol. 108, Issue 6, pp. 264-268, ISSN 1660-4458.

Michel, C., Lattion E., Oropeza M. and Lestuzzi P. (2009) Erdbebenverletzbarkeitsfunktionen von einem typischen Schweizer Mauerwerksgebäude, in Erdbeben und Mauerwerk, Proceedings of the 11. D-A-CH Tagung, SIA Dokumentation D 0231, Zürich, September 2009, in German.

Michel, C., Lattion E., Oropeza M. and Lestuzzi P. (2009). Vulnerability assessment of existing masonry buildings in moderate seismicity areas using experimental techniques, in Proceedings of the 2009 Asian-Pacific Network of Centers for Earthquake Engineering Research (ANCER) Workshop, Urbana IL, August 2009.

Moore, J.R., Gischig, V., Button, E., and Loew, S. (2010). Rockslide deformation monitoring with fiber optic strain sensors, *Natural Hazards and Earth System Sciences*, 10(2), 191-201.

Moore, J.R., Gischig, V., Burjánek, J., Loew, S., Fäh, D. (2011). Site effects in unstable rock slopes: dynamic behavior of the Randa instability (Switzerland), *Bull. Seism. Soc. Am.*, 101, 3110-3116, doi:10.1785/0120110127.

Moore, J. R., Gischig V., Katterbach, M., Loew, S. (2011): Air circulation in deep cracks and the temperature field of an alpine rock slope, *Earth Surface Processes and Landforms*, 36(15), 1985-1996.

Nanjo, K.Z., D. Schorlemmer, J. Woessner, S. Wiemer, and D. Giardini, (2010). Earthquake detection capability of the Swiss Seismic Network, *Geophys. Journ. Int.*, DOI: 10.1111/j.1365-246X.2010.04593.x.

Poggi, V. and Fäh,D. (2010). Estimating Rayleigh wave particle motion from three-component array analysis of ambient vibrations, *Geophys. J. int.* 180, 251-267. doi:10.1111/j.1365-246X.2009.04422.x

Roten, D., Fäh, D., Bonilla, L. F., Alvarez-Rubio, S., Weber, T. M., Laue, J. (2009). Estimation of non-linear site response in a deep Alpine valley, *Geophys. J. int.* 178, 1597-1613. doi:10.1111/j.1365-246X.2009.04246.x

Spada, M., Wiemer, S. and Kissling, E. (2011). Quantifying a Potential Bias in Probabilistic Seismic Hazard As-sessment: Seismotectonic Zonation with Fractal Properties. *Bull. Seismol. Soc. Am.*, 101(6), 2694-2711. doi:10.1785/0120110006

Willenberg, H., Loew, S., Eberhardt, E., Evans, K., Spillmann, T., Heincke, B., Maurer, H-R., and Green, A. (2008a). Internal structure and deformation of an unstable crystalline rock mass above Randa (Switzerland): Part I – Internal structure from integrated geological and geophysical investigations, *Engineering Geology* 101, 1-14.

Willenberg, H., Evans, K.F., Eberhardt, E., Spillmann, T., and Loew, S., (2008b). Internal structure and deformation of an unstable crystalline rock mass above Randa (Switzerland): Part II – Three-dimensional deformation patterns, *Engineering Geology* 101, 15-32.

Woessner, J., A. Christoffersen, J. D. Zechar, and D. Monelli (2010), Building self-consistent, short-term earth-quake probability (STEP) models : improved strategies and calibration procedures, *Annals of Geophys.*, 53, 3, doi :10.4401/ag-4812

Woessner, J., S. Hainzl, W. Marzocchi, M. J. Werner, A.M. Lombardi, F. Catalli, B. Enescu, M. Cocco, M. C. Gerstenberger, and S. Wiemer, (2011). A Retrospective Comparative Forecast Test on the 1992 Landers Sequence, *J. Geophys. Res.*, doi:10.1029/2010JB007846.