

Publications list Pascal Horton

Peer-review

- Horton, P., Obled, C., & Jaboyedoff, M. (2017). The analogue method for precipitation prediction: finding better analogue situations at a sub-daily time step. *Hydrology and Earth System Sciences*, 21, 3307–3323. <http://doi.org/10.5194/hess-21-3307-2017>
- Horton, P., Jaboyedoff, M., & Obled, C. (2017). Global Optimization of an Analog Method by Means of Genetic Algorithms. *Monthly Weather Review*, 145(4), 1275–1294. <http://doi.org/10.1175/MWR-D-16-0093.1>
- Horton, P., Jaboyedoff, M., & Obled, C. (2017). Using genetic algorithms to optimize the analogue method for precipitation prediction in the Swiss Alps. *Journal of Hydrology*, in press. <http://doi.org/10.1016/j.jhydrol.2017.04.017>
- Losasso, L., Derron, M.-H., Horton, P., Jaboyedoff, M., & Sdao, F. (2016). Definition and mapping of potential rockfall source and propagation areas at a regional scale in Basilicata region (Southern Italy). *Rendiconti Online Della Società Geologica Italiana*, 41, 175–178. <http://doi.org/10.3301/ROL.2016.122>
- Oppikofer, T., Hermanns, R., Sandøy, G., Böhme, M., Jaboyedoff, M., Horton, P., ... Fuchs, H. (2016). Quantification of casualties from potential rock-slope failures in Norway. *Landslides and Engineered Slopes. Experience, Theory and Practice*, (June), 1537–1544. <http://doi.org/10.1201/b21520-190>
- Horton, P., Jaboyedoff, M., Rudaz, B., & Zimmermann, M. (2013). Flow-R, a model for susceptibility mapping of debris flows and other gravitational hazards at a regional scale. *Natural Hazards and Earth System Sciences*, 13(4), 869–885. <http://doi.org/10.5194/nhess-13-869-2013>
- Michoud, C., Derron, M.-H., Horton, P., Jaboyedoff, M., Baillifard, F.-J., Loye, A., ... Queyrel, A. (2012). Rockfall hazard and risk assessments along roads at a regional scale: example in Swiss Alps. *Natural Hazards and Earth System Sciences*, 12(3), 615–629. <http://doi.org/10.5194/nhess-12-615-2012>
- Horton, P., Jaboyedoff, M., Metzger, R., Obled, C., & Marty, R. (2012). Spatial relationship between the atmospheric circulation and the precipitation measured in the western Swiss Alps by means of the analogue method. *Natural Hazards and Earth System Sciences*, 12, 777–784. <http://doi.org/10.5194/nhess-12-777-2012>
- Kappes, M. S., Malet, J.-P., Remaître, A., Horton, P., Jaboyedoff, M., & Bell, R. (2011). Assessment of debris-flow susceptibility at medium-scale in the Barcelonnette Basin, France. *Natural Hazards and Earth System Sciences*, 11(2), 627–641. <http://doi.org/10.5194/nhess-11-627-2011>
- Blahut, J., Horton, P., Sterlacchini, S., & Jaboyedoff, M. (2010). Debris flow hazard modelling on medium scale: Valtellina di Tirano, Italy. *Natural Hazards and Earth System Sciences*, 10(11), 2379–2390. <http://doi.org/10.5194/nhess-10-2379-2010>
- Ladson, A., Lloyd, S., Walsh, C., Fletcher, T., & Horton, P. (2007). Scenarios for redesigning an urban drainage system to reduce runoff frequency and restore stream ecological condition. *Water Practice & Technology*, 2(2), 1–12. <http://doi.org/10.2166/WPT.2007053>

Horton, P., Schaefli, B., Mezghani, A., Hingray, B., & Musy, A. (2006). Assessment of climate-change impacts on alpine discharge regimes with climate model uncertainty. *Hydrological Processes*, 20(10), 2091–2109. <http://doi.org/10.1002/hyp.6197>

Other publications

Jaboyedoff, M., Horton, P., Derron, M.-H., Longchamp, C., & Michoud, C. (2013). Monitoring Natural Hazards. In *Encyclopedia of Natural Hazards* (pp. 686–696). Springer Netherlands. http://doi.org/10.1007/978-1-4020-4399-4_354

Horton, P., Jaboyedoff, M., Metzger, R., Obled, C., & Marty, R. (2013). Mise en évidence de relations spatiales entre la circulation atmosphérique générale et les précipitations mesurées dans le bassin alpin du Rhône, à l'aide de la méthode des analogues. *Mémoire de La Société Vaudoise Des Sciences Naturelles*, 25, 11–21.

Horton, P. (2012). *Améliorations et optimisation globale de la méthode des analogues pour la prévision statistique des précipitations. Développement d'un outil de prévision et application opérationnelle au bassin du Rhône à l'amont du Léman*. Université de Lausanne. <https://tel.archives-ouvertes.fr/tel-01441762>

Fischer, L., Rubensdotter, L., Sletten, K., Stalsberg, K., Horton, P., & Jaboyedoff, M. (2012). Debris flow modeling for susceptibility mapping at regional to national scale in Norway. In *Proceedings of the 11th International and 2nd North American Symposium on Landslides* (pp. 723–729). Banff, Alberta, Canada.

Jaboyedoff, M., Choffet, M., Derron, M., Horton, P., Loye, A., Longchamp, C., ... Michoud, C. (2012). Preliminary Slope Mass Movement Susceptibility Mapping Using DEM and LiDAR DEM. In B. Pradhan & M. Buchroithner (Eds.), *Terrigenous Mass Movements* (pp. 109–170). Berlin, Heidelberg: Springer Berlin Heidelberg. <http://doi.org/10.1007/978-3-642-25495-6>

Lari, S., Frattini, P., Crosta, G., Jaboyedoff, M., & Horton, P. (2011). Rockfall and debris flow societal and economic risk assessment at the regional scale. In *Acts 10th World Water Day, Accademia Nazionale dei Lincei - Atti dei Convegni Lincei* (pp. 179–187). Rome.

Lari, S., Crosta, G., Frattini, P., Horton, P., & Jaboyedoff, M. (2011). Regional-scale debris-flow risk assessment for an alpine valley. In *Proceedings of the 5th International Conference on Debris-Flow Hazards Mitigation: Mechanics, Prediction and Assessment - Italian Journal of Engineering Geology and Environment* (pp. 933–940). Padova, Italy. <http://doi.org/10.4408/IJEGE.2011-03.B-101>

Jaboyedoff, M., Rudaz, B., & Horton, P. (2011). Concepts and parameterization of Perla and FLM model using Flow-R for debris flow. In *Proceedings of the 5th Canadian Conference on Geotechnique and Natural Hazards*. Kelowna, BC, Canada.

Horton, P., Jaboyedoff, M., Zimmermann, M., Mazotti, B., & Longchamp, C. (2011). Flow-R, a model for debris flow susceptibility mapping at a regional scale - some case studies. In *Proceedings of the 5th International Conference on Debris-Flow Hazards Mitigation: Mechanics, Prediction and Assessment - Italian Journal of Engineering Geology and Environment* (pp. 875–884). Padova, Italy. <http://doi.org/10.4408/IJEGE.2011-03.B-095>

- Baumann, V., Wick, E., Horton, P., & Jaboyedoff, M. (2011). Debris flow susceptibility mapping at a regional scale along the National Road N7, Argentina. In *Proceedings of the 14th Pan-American Conference on Soil Mechanics and Geotechnical Engineering*.
- Jaboyedoff, M., Michoud, C., Mazotti, B., Choffet, M., Dubois, J., Breguet, A., ... Pedrazzini, A. (2010). *Cartes Indicatives de Dangers pour le Val de Bagnes et de Vollèges: Carnet méthodologique*.
- van Westen, C., Quan Luna, B., Vargas Franco, R., Malet, J., Jaboyedoff, M., Horton, P., & Kappes, M. (2010). Development of training materials on the use of Geo-information for Multi-Hazard Risk Assessment in a Mountainous Environment. In *Proceedings of the Mountain Risks International Conference* (pp. 469–475). Firenze, Italy.
- Horton, P., Loye, A., & Jaboyedoff, M. (2009). *Debris Flows and Avalanches Susceptibility Hazard Mapping for Pakistan, Modelling of the two pilot districts Muzaffarabad and Manshera*.
- García Hernández, J., Horton, P., Tobin, C., & Boillat, J. (2009). MINERVE 2010: Préviation hydrométéorologique et gestion des crues sur le Rhône alpin. *Wasser Energie Luft – Eau Energie Air*, 4, 297–302.
- Jaboyedoff, M., Horton, P., Loye, A., Pedrazzini, A., & Surace, I. (2008). *Cartes Indicatives de Danger des Mouvements de Versants du Canton de Vaud: rapport technique*.
- Jaboyedoff, M., Pedrazzini, A., Horton, P., Loye, A., & Surace, I. (2008). Preliminary slope mass movements susceptibility mapping using LiDAR DEM. In *Proceedings of the 61st Canadian Geotechnical Conference* (pp. 419–426).
- Horton, P., Jaboyedoff, M., & Bardou, E. (2008). Debris flow susceptibility mapping at a regional scale. In *4th Canadian Conference on Geohazards* (pp. 399–406).
- Horton, P., Schaefli, B., Mezghani, A., Hingray, B., & Musy, A. (2005). *Prediction of climate change impacts on Alpine discharge regimes under A2 and B2 SRES emission scenarios for two future time periods (2020-2049, 2070-2099) Technical report*.
- Schaefli, B., Horton, P., Hingray, B., Mezghani, A., & Musy, A. (2005). Impacts potentiels d'un changement climatique sur les régimes hydrologiques alpins. *Wasser Energie Luft – Eau Energie Air*, 11/12, 346–351. <http://infoscience.epfl.ch/record/55853>
- Ladson, A. R., Walsh, C. J., Fletcher, T. D., Cornish, S., & Horton, P. (2004). Improving stream health by reducing the connection between impervious surfaces and waterways. In *International Conference on Water Sensitive Urban Design* (pp. 1–12). Adelaide, Australia.