

# Torrents

## Articles scientifiques : transport de sédiment

- C. Ancey et I. Pascal, Estimating mean bedload transport rates and their uncertainties, *Journal of Geophysical Research: Earth Surface*, 125, e2020JF005534.
- C. Ancey, Bedload transport: a walk between randomness and determinism 2. Challenges and prospects. *Journal of Hydraulic Research* 58, 18-33, 2020
- C. Ancey, Bedload transport: a walk between randomness and determinism 1. State of the art. *Journal of Hydraulic Research* 58, 1-17, 2020
- C. Ancey, E. Bardou, M. Funk, M. Huss, T. Trehwela, and M. Werder, Hydraulic reconstruction of the 1818 Giétro glacial lake outburst flood, *Water Resources Research*, 53, 2019.
- B. Dhont and C. Ancey, « Are bedload transport pulses in gravel-bed rivers created by bar migration or sediment waves?, » *Geophysical Research Letters* **45** 5501-5508, 2018.
- B. Dhont, G. Rousseau, and C. Ancey, « Continuous monitoring of bedload transport in a laboratory flume using an impact sensor, » *Journal of Hydraulic Engineering* , **143**, 04017005, 2017.
- Heyman, J., P. Bohorquez, and C. Ancey, Entrainment, motion, and deposition of coarse particles transported by water over a sloping mobile bed, *Journal of Geophysical Research: Earth Surface*, 121, 1931-1952, 2016.
- Ancey, C., P. Bohorquez, and J. Heyman, Stochastic interpretation of the advection diffusion equation and its relevance to bed load transport, *Journal of Geophysical Research: Earth Surface*, 120, 2529-2551, 2015.
- Bohorquez, P., and C. Ancey, Stochastic-deterministic

- modeling of bed load transport in shallow waterflow over erodible slope: Linear stability analysis and numerical simulation, *Advances in Water Resources*, 83, 36-54, 2015.
- Bohorquez, P., and C. Ancey, Particle diffusion in non-equilibrium bedload transport simulations, *Applied Mathematical Modelling*, 40, 7474-7492, 2016.
  - Heyman, J., H.B. Ma, F. Mettra, and C. Ancey, Spatial correlations in bed load transport: Evidence, importance, and modeling, *Journal of Geophysical Research: Earth Surface*, 119, 1751-1767, 2014.
  - Ma, H.-B., J. Heyman, X. Fu, F. Mettra, C. Ancey, and G. Parker, Bedload transport over a broad range of time scales: determination of three regimes of fluctuations, *Journal of Geophysical Research*, 119, 2653-2673, 2015.
  - Ancey, C., and J. Heyman, A microstructural approach to bed load transport: mean behaviour and fluctuations of particle transport rates, *Journal of Fluid Mechanics*, 744, 129-168, 2014.
- 
- Ancey, C., P. Bohorquez, and E. Bardou, Sediment transport in mountain rivers, *Ercoftac*, 100, 37-52, 2014.
  - Heyman, J., F. Mettra, H.B. Ma, and C. Ancey, Statistics of bedload transport over steep slopes: Separation of time scales and collective motion, *Geophysical Research Letters*, 40, 128-133, 2013.
  - Ancey, C., Stochastic approximation of the Exner equation under lower-regime conditions, *Journal of Geophysical Research*, 115, F00A11, 2010.
  - Ancey, C., A.C. Davison, T. Böhm, M. Jodeau, and P. Frey, Entrainment and motion of coarse particles in a shallow water stream down a steep slope, *Journal of Fluid Mechanics*, 595, 83-114, 2008.
  - Ancey, C., T. Böhm, M. Jodeau, and P. Frey, Statistical description of sediment transport experiments, *Physical*

Review E, 74, 011302, 2006.

- Ancey, C., F. Bigillon, P. Frey, and R. Ducret, Rolling motion of a single bead in a rapid shallow water stream down a steep channel, *Physical Review E*, 67, 011303, 2003.
- Ancey, C., F. Bigillon, P. Frey, J. Lanier, and R. Ducret, Saltating motion of a bead in a rapid water stream, *Physical Review E*, 66, 036306, 2002.

#### Articles scientifiques : laves torrentielles

- Ancey, C., and B.M. Bates, Stokes' third problem for Herschel-Bulkley fluids, *Journal of Non-Newtonian Fluid Mechanics*, 243, 27-37, 2017.
- Ancey, C., N. Andreini, and Epely-Chauvin, Granular suspensions I. Macro-viscous behavior, *Physics of Fluids*, 25, 033301, 2013.
- Ancey, C., N. Andreini, and Epely-Chauvin, The dam-break problem for concentrated suspensions of neutrally buoyant particles, *Journal of Fluid Mechanics*, 724, 95-122, 2013.
- Andreini, N., C. Ancey, and G. Epely-Chauvin, Granular suspensions. II. Plastic regime, *Physics of Fluids*, 25, 033302, 2013.
- Andreini, N., Epely-Chauvin, and C. Ancey, Internal dynamics of Newtonian and viscoplastic fluid avalanches down a sloping bed, *Physics of Fluids*, 24, 053101, 2012.
- Ancey, C., N. Andreini, and Epely-Chauvin, Viscoplastic dam break waves: review of simple computational approaches and comparison with experiments, *Advances in Water Resources*, 48, 79-91, 2012.
- Ancey, C., and S. Cochard, The dam-break problem for Herschel-Bulkley fluids down steep flumes, *Journal of Non-Newtonian Fluid Mechanics*, 158, 18-35, 2009.
- Ancey, C., S. Cochard, and N. Andreini, The dam-break problem for viscous fluids in the high-capillary-number

- limit, *Journal of Fluid Mechanics*, 624, 1-22, 2009.
- Gray, J.M.N.T., and C. Ancey, Segregation, recirculation and deposition at coarse particles near two-dimensional avalanche fronts, *Journal of Fluid Mechanics*, 629, 387-423, 2009.
  - Ancey, C., Debris flows and related phenomena, in *Geomorphological Fluid Mechanics: Selected Topics in Geological and Geomorphological Fluid Mechanics*, edited by N.J. Balmforth, and A. Provenzale, Springer, Berlin, 2001.
  - Ancey, C., Introduction to rheology and applications to geophysics, in *Geomorphological Fluid Mechanics: Selected Topics in Geological and Geomorphological Fluid Mechanics*, edited by N.J. Balmforth, and A. Provenzale, pp. 52–78, Springer, Berlin, 2001.
  - Ancey, C., and H. Jorrot, Yield stress for particle suspensions within a clay dispersion, *Journal of Rheology*, 45, 297-319, 2001.
  - Ancey, C., Role of lubricated contacts in concentrated polydisperse suspensions, *Journal of Rheology*, 45, 1421-1439, 2001.
  - Ancey, C., and P. Evesque, Frictional-collisional regime for granular suspension flows down an inclined channel, *Physical Review E*, 62, 8349-8360, 2000.
  - Coussot, P., and C. Ancey, Rheophysical classification of concentrated suspensions and granular pastes, *Physical Review E*, 59, 4445-4457, 1999.
  - Ancey, C., and P. Coussot, Transition frictionnelle/visqueuse pour une suspension granulaire, *Comptes Rendus de l'Académie des Sciences, s\erie IIb*, 327, 515-522, 1999.
  - Coussot, P., S. Proust, and C. Ancey, Rheological interpretation of deposits of yield stress fluids, *Journal of Non-Newtonian Fluid Mechanics*, 66, 55-70, 1996.