

Francesco Comiti - Publications list (conference proceedings not included)

• **Books and guidelines**

1. Rinaldi M., Belletti B., *Comiti F.*, Nardi L., Mao L., Bussetini M. (2015) Sistema di rilevamento e classificazione delle Unità Morfologiche dei corsi d'acqua (SUM). ISPRA – Manuali e Linee Guida 122/2015. Roma.
2. Rinaldi M., Surian N., *Comiti F.*, Bussetini M. (2014) IDRAIM – Sistema di valutazione idromorfologica, analisi e monitoraggio dei corsi d'acqua. Istituto Superiore per la Protezione e la Ricerca Ambientale, Roma, 113/2014, ISBN 978-88-448-0661-3.
3. Yochum S.E., *Comiti F.*, Wohl E., David G.C.L., Mao L. (2014). Photographic Guidance for Selecting Flow Resistance Coefficients in High-Gradient Channels. Gen. Tech. Rep. RMRS-GTR-323. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, 91 pp.
4. Rinaldi M., Surian N., *Comiti F.*, Bussetini M. (2011) Manuale tecnico – operativo per la valutazione ed il monitoraggio dello stato morfologico dei corsi d'acqua. Versione 1. Istituto Superiore per la Protezione e la Ricerca Ambientale, Roma, 85 pp, ISBN 978-88-448-0487-9.

• **Chapters in books**

1. Lucía A., Antonello A., Campana D., Cavalli M., Crema S., Franceschi S., Marchese E., Niedrist M., Schneiderbauer S., *Comiti F.* (2014) Monitoring and modeling large wood transport in a mountain basin of North-eastern Italy. In: Lollino, G. et al. (Eds.), Engineering Geology for Society and Territory-River Basins. Volume 3, Springer, pp. 155-158.
2. Lucía A., *Comiti F.*, Borga M., Cavalli M., Marchi L. (2014) Large wood recruitment and transport during a severe flash flood in North-Western Italy. In: Lollino, G. et al. (Eds.), Engineering Geology for Society and Territory-River Basins. Volume 3, Springer, pp. 159-162.
3. Arattano A., Bertoldi G., Cavalli M., *Comiti F.*, D'Agostino V., Theule J. (2014) Comparison of Methods and Procedures for Debris-Flow Volume Estimation In: Lollino, G. et al. (Eds.), Engineering Geology for Society and Territory-River Basins. Volume 3, Springer, pp. 115-122.
4. Gschnitzer T., Gems B., Aufleger M., Mazzorana B., *Comiti F.* (2014) On the Evaluation and Modelling of Wood Clogging Processes in Flood Related Hazards Estimation. In: Lollino, G. et al. (Eds.), Engineering Geology for Society and Territory-River Basins. Volume 3, Springer, pp. 139-142.
5. Arattano A., Cavalli M., *Comiti F.*, Coviello V., Macconi P., Marchi L. (2014) Standardization of Methods and Procedures for Debris Flow Seismic Monitoring. In: Lollino, G. et al. (Eds.), Engineering Geology for Society and Territory-River Basins. Volume 3, Springer, pp. 63-67.
6. *Comiti F.*, Mao L. (2012) Recent advances in the dynamics of steep channels. In: Gravel-bed rivers: processes, tools, environments. Chichester, West Sussex, England: John Wiley & Sons Ltd., ISBN: 978-0-470-68890-8.
7. *Comiti F.*, Lenzi M.A, Mao L. (2010) Local scouring at check dams in mountain rivers. In: Conesa-Garcia M., Lenzi M.A. (eds) Check Dams, Morphological Adjustments and Erosion Control in Torrential Streams. Nova Publisher, ISBN: 978-1-60876-146-3.
8. Mao L., *Comiti F.* (2010) The effects of large wood elements during an extreme flood in a small tropical basin of Costa Rica. In: Monitoring, Simulation, Prevention and Remediation of Dense and Debris Flows III, WIT Transactions on Engineering Sciences, Vol 67, 225-236. ISBN: 978-184564442-0
9. Rigon E., *Comiti F.*, Mao L., Lenzi M.A. (2008) Relationships among basin area, sediment transport mechanisms and wood storage in mountain basins of the Dolomites (Italian Alps). In: Monitoring, simulation, prevention and remediation of dense and debris flow II, WIT Transactions on Engineering Sciences, Vol 60, 163-172. ISBN: 978-1-84564-118-4
10. Mao L., *Comiti F.*, Andreoli A., Picco L., Lenzi M.A., Urciolo A., Iturraspe R., Iroumè A. (2008) Role and management of in-channel wood in relation to flood events in Southern Andes basins. In: Monitoring, simulation, prevention and remediation of dense and debris flow II, WIT Transactions on Engineering Sciences, Vol 60, 207-216. ISBN: 978-1-84564-118-4.
11. *Comiti F.*, Mao E., Preciso E., Picco L., Marchi L., Borga M. (2008) Large wood and flash floods: Evidence from the 2007 event in the Davča basin (Slovenia). In: Monitoring, simulation, prevention and

- remediation of dense and debris flow II, WIT Transactions on Engineering Sciences, Vol 60, 173-182. ISBN: 978-1-84564-118-4.
12. *Comiti F., D'Agostino V* (2007) Interventi di sistemazione idraulica dei torrenti e gestione dei cantieri. In: La gestione forestale per la conservazione degli habitat della rete natura 2000. A cura di Masutti L. e Battisti A., Regione Veneto, Accademia Italiana di Scienze Forestali, 76- 95.
 13. *Da Canal M., Comiti F., Surian N., Mao L., Lenzi M.A.* Studio delle variazioni morfologiche del F. Piave nel vallone bellunese durante gli ultimi duecento anni (2007). Quaderni di Idronomia Montana, 27, 259-271
 14. *Pecorari E., Comiti F., Rigon E., Picco L., Lenzi M.A.* Caratteristiche e quantificazione del legname in alveo in corsi d'acqua di grandi dimensioni: risultati preliminari sul fiume Piave (2007). Quaderni di Idronomia Montana, 27, 477-488
 15. *Mao L., M. Cavalli, F. Comiti, L. Marchi, M. Arattano.* Long-term monitoring of bedload and debris flows in two small catchments of the Eastern Italian Alps (2006). In: Lorenzini G., Brebbia C.A., Emmanoueloudis D.E. Monitoring, Simulation, Prevention and remediation of Dense and Debris Flows. Wessex Institute Technology UK, 147-157. ISBN: 978-1-84564-169-6
 16. *Ferro V., M.A. Lenzi, F. Comiti* (2006) Un criterio geomorfologico di progettazione delle briglie in massi. Quaderni di Idronomia Montana, 26, 285-291.
 17. *Comiti F., V. D'Agostino, V. Ferro, M.A. Lenzi* (2006) Fenomeni di erosione localizzata a valle di opere trasversali: integrazioni tra indagini di campo e di laboratorio, Quaderni di Idronomia Montana, 25, 217-225
 18. *Lenzi M.A, L. Mao, F. Comiti, G. Lucchini* (2006) La resistenza al flusso in corsi d'acqua sistemati con sequenze di briglie. Quaderni di Idronomia Montana, 26, 375-386.
 19. *Mao L., F. Comiti, A. Andreoli, M.A. Lenzi, G.R. Scussel,* Bankfull and bed load effective discharges in a steep boulder-bed channel (2005). In Walling, D.E., Horowitz, A.J. (eds), Sediment budget I, IAHS Publ. N°291, 189-195.
 20. *Lenzi M.A., A. Andreoli, F. Comiti* (2005) I fenomeni di erosione localizzata nella dinamica dei torrenti con morfologia a gradinata. Quaderni di Idronomia Montana, 22, 279-302.
 21. *Comiti F., A. Andreoli, M.A. Lenzi* (2004) Dimensions of scour holes and effectiveness of grade control structures in two cobble-gravel bed rivers, Scour and Erosion, vol. 1, Stallion Press, 358-365.

• **Journal Papers in refereed academic journals with impact factor**

1. *Andreopoulos D., Damigos D., Comiti F. Fischer C.* (2015) Estimating the non-market benefits of climate change adaptation of river ecosystem services: A choice experiment application in the Aaos basin, Greece. Environmental Science and Policy, 45, 92–103. DOI: 10.1016/j.envsci.2014.10.003
2. *Andreopoulos D., Damigos D., Comiti F. Fischer C.* (2015) Monetizing the impacts of climate change on river uses towards effective adaptation strategies. Desalination and Water Treatment, DOI: 10.1080/19443994.2014.984928
3. *Surian N., Barban M., Ziliani L., Monegato G., Bertoldi W., Comiti F.* (2014) Vegetation turnover in a braided river: frequency and effectiveness of floods of different magnitude, Earth Surf. Process. Landforms, DOI: 10.1002/esp.3660.
4. *Penna D., Engel M., Mao L., Dell'Agnese A., Bertoldi G., Comiti F.* (2014) Tracer-based analysis of spatial and temporal variation of water sources in a glacierized catchment. Hydrol. Earth Syst. Sci. Discuss., 11, 4879-4924, doi:10.5194/hessd-11-4879-2014.
5. *Campana D., Marchese E., Theule J., Comiti F.* (2014) Channel degradation and restoration of an Alpine river and related morphological changes. Geomorphology, 221, 230-241. DOI 10.1016/j.geomorph.2014.06.016
6. *Dell'Agnese A., Mao L., Comiti F.* (2014) Calibration of an acoustic pipe sensor through bedload traps in a glacierized basin. Catena, 121, 222-231. DOI: 10.1016/j.catena.2014.05.021
7. *Comiti F., Marchi L., Macconi P., Arattano M., Bertoldi G., Borga M., Brardinoni F., Cavalli M., D'Agostino V., Penna D., Theule J.* (2014). A new monitoring station for debris flows in the European Alps: first observations in the Gadoria basin. Natural Hazards, 73(3), 1175-1198. DOI: 10.1007/s11069-014-1088-5
8. *Mao L., Dell'Agnese A., Huincahe C., Penna D., Engel M., Niedrist G., Comiti F.* (2014). Bedload hysteresis in a glacier-fed mountain river. Earth Surface Processes and Landforms, 39(7), 964-976. DOI: 10.1002/esp.3563
9. *Bertoldi W., Welber M., Mao L., Zanella S., Comiti F.* (2014). A flume experiment on wood storage and remobilization in braided river systems. Earth Surface Processes and Landforms, 39(6), 804-813. DOI: 10.1002/esp.3537

10. Mao L., Andreoli A., Iroumé A., *Comiti F.*, Lenzi M.A. (2013). Dynamics and management alternatives of in-channel large wood in mountain basins of the southern Andes. *Bosque*, 34(3), 319-330. DOI: 10.4067/S0717-92002013000300008
11. Rinaldi M., Surian N., *Comiti F.*, Bussetini M. (2013). A method for the assessment and analysis of the hydromorphological condition of Italian streams: The Morphological Quality Index (MQI). *Geomorphology*, 180, 96-108. DOI: 10.1016/j.geomorph.2012.09.009
12. Mazzorana B., *Comiti F.*, Fuchs S. (2013) A structured approach to enhance flood hazard assessment in mountain streams. *Natural Hazards*, 67(3), 991-1009. DOI: 10.1007/s11069-011-9811-y
13. Cavalli M., Trevisani S., *Comiti F.*, Marchi L. (2013) Geomorphometric assessment of spatial sediment connectivity in small Alpine catchments. *Geomorphology*, 188, 31-41. DOI: 10.1016/j.geomorph.2012.05.007
14. Crosato A., Rajbhandari N., *Comiti F.*, Cherradi X., Uijtewaal W. (2013) Flume experiments on entrainment of large wood in low-land rivers. *Journal of Hydraulic Research*, 51(5), 581-588. DOI: 10.1080/00221686.2013.796573
15. Wohl E.E., Bolton S., Cadol D., *Comiti F.*, Goode J.R., Mao L. (2012) A two end-member model of wood dynamics in headwater neotropical rivers. *Journal of Hydrology*, 462-463, 67-76. DOI: 10.1016/j.jhydrol.2011.01.061
16. *Comiti F.* (2012) How natural are Alpine mountain rivers? Evidence from the Italian Alps. *Earth Surface Processes and Landforms*, 37 (7), 693-707. DOI: 10.1002/esp.2267
17. Mazzorana B., *Comiti F.*, Scherer C., Fuchs S. (2012) Developing consistent scenarios to assess flood hazards in mountain streams. *Journal of Environmental Management*, 94, 112-124. DOI: 10.1016/j.jenvman.2011.06.030
18. Rigon E., *Comiti F.*, Lenzi M.A. (2012) Large wood storage in streams of the Eastern Italian Alps and the relevance of hillslope processes. *Water Resources Research*, 48, 1-18. DOI: 10.1029/2010WR009854
19. Mazzorana B., *Comiti F.*, Volcan C., Scherer C. (2011) Determining flood hazard patterns through a combined stochastic-deterministic approach. *Natural Hazards*, 59, 301-316. DOI: 10.1007/s11069-011-9755-2
20. Wilcox A., Wohl E.E., *Comiti F.*, Mao L. (2011) Hydraulics, morphology, and energy dissipation in an alpine step-pool channel. *Water Resources Research*, 47, W07514. DOI: 10.1029/2010WR010192
21. *Comiti F.*, Da Canal M., Surian N., Mao L., Picco L., Lenzi M.A. (2011) Channel adjustments and vegetation cover dynamics in a large gravel bed river over the last 200 years. *Geomorphology* 125, 147-159. DOI: 10.1016/j.geomorph.2010.09.011
22. *Comiti F.*, Cadol D., Wohl E.E. (2010) Reply to comment by Keith Richardson on "Flow regimes, bed morphology, and flow resistance in self-formed step-pool channels", *Water Resources Research*, 46, W12804. DOI: 10.1029/2010WR009699
23. Iroumé A., Andreoli A., *Comiti F.*, Ulloa H., Huber A. (2010) Large wood abundance, distribution and mobilization in a third order Coastal mountain range river system, southern Chile. *Forest Ecology and Management*, 260 (4), 480-490. DOI: 10.1016/j.foreco.2010.05.004
24. MacVicar B., Piegay H., Henderson A., *Comiti F.*, Oberline C., Pecorari E. (2009) Quantifying the temporal dynamics of wood in large rivers: field trials of wood surveying, dating, tracking, and monitoring techniques. *Earth Surf. Process. Landforms*, 34, 2031-2046. DOI: 10.1002/esp.1888
25. *Comiti F.*, Mao L., Lenzi M.A., Siligardi M. (2009) Artificial steps to stabilize mountain rivers: A post-project ecological assessment. *River Research and Applications*, 25(5), 639-659. DOI: 10.1002/rra.1234
26. Surian N., Ziliani L., *Comiti F.*, Lenzi M.A., Mao L. (2009) Channel adjustments and alteration of sediment fluxes in gravel-bed rivers of north-eastern Italy: Potentials and limitations for channel recovery, *River Research and Applications*, 25(5), 551-567. DOI: 10.1002/rra.1231
27. *Comiti F.*, Cadol D., Wohl E.E. (2009) Flow regimes, bed morphology, and flow resistance in self-formed step-pool channels. *Water Resources Research*, 45, W04424. DOI: 10.1029/2008WR007259
28. Mao L., Cavalli M., *Comiti F.*, Marchi L., Lenzi M.A., Arattano M. (2009). Sediment transfer processes in two Alpine catchments of contrasting morphological settings. *Journal of Hydrology*, 364, 1-2, 88-98. DOI: 10.1016/j.jhydrol.2008.10.021
29. Mao L., A. Andreoli, F. *Comiti*, M.A. Lenzi (2008) Geomorphic effects of large wood jams on a sub-antarctic mountain stream. *River Research and Applications*, 24, 249-266. DOI: 10.1002/rra.1062
30. *Comiti F.*, A. Andreoli, L. Mao, M.A. Lenzi (2008) Wood storage in three mountain streams of Southern Andes and its hydro-morphological effects. *Earth Surf. Process. Landforms*, 33(2), 242-262. DOI: 10.1002/esp.1541
31. Mao L., Burns S., *Comiti F.*, Andreoli A., Urciuolo A., Gaviño-Novillo M., Iturraspe R., Lenzi M.A. (2008) Acumulaciones de detritos leñosos en un cauce de montaña de Tierra del Fuego: análisis de la movilidad y de los efectos hidromorfológicos. *Bosque*, 29(3), 197-211.

32. Andreoli A., F. *Comiti*, M.A. Lenzi, Characteristic, distribution and geomorphic role of large woody debris in a mountain stream of the Chilean Andes (2007). *Earth Surf. Process. Landforms*, 32(11), 1675-1692. DOI: 10.1002/esp.1593
33. *Comiti* F., L. Mao, A. Wilcox, E. Wohl, M.A. Lenzi (2007) Field-derived relationships for flow velocity and resistance in high-gradient streams. *Journal of Hydrology*, 340 (1-2), 48-62. DOI: 10.1016/j.jhydrol.2007.03.021
34. Andreoli A., G. Carlig, F. *Comiti*, A. Iroumé (2007) Residuos leñosos de gran tamaño en un torrente de la Cordillera de Los Andes, Chile: su funcionalidad e importancia. *Bosque*, 28(2), 83-96.
35. Lenzi M.A., L. Mao, F. *Comiti* (2006) When does bedload transport begin in steep boulder-bed streams ? *Hydrological Processes*, 20, 3517-3533. DOI: 10.1002/hyp.6168
36. *Comiti* F., A. Andreoli, M.A. Lenzi, L. Mao (2006) Spatial density and characteristics of woody debris in five mountain rivers of the Dolomites (Italian Alps). *Geomorphology*, 78, 44-63. DOI: 10.1016/j.geomorph.2006.01.021
37. Lenzi M.A., L. Mao, F. *Comiti* (2006) Effective discharge for sediment transport in a mountain river: computational approaches and geomorphic effectiveness. *Journal of Hydrology*, 326, 257-276. DOI: 10.1016/j.jhydrol.2005.10.031
38. *Comiti* F., M.A. Lenzi (2006) Dimensions of standing waves at steps in mountain rivers. *Water Resources Research*, 42, W03411, doi:10.1029/2004WR003898. DOI: 10.1029/2004WR003898
39. *Comiti* F., A. Andreoli, M.A. Lenzi (2005) Morphological effects of local scouring in step-pool streams, *Earth Surf. Process. Landforms*, 30(12), 1567-1581. DOI: 10.1002/esp.1217
40. Lenzi M.A., L. Mao, F. *Comiti* (2004) Magnitude-frequency analysis of bedload data in an Alpine basin, *Water Resources Research*, 40, W0720.
41. Marion, A., M. A. Lenzi, F. *Comiti* (2004) Effect of sill spacing and sediment size grading on scouring at grade-control structures, *Earth Surf. Process. Landforms*, 29(8), 983-993. DOI: 10.1002/esp.1081
42. Lenzi M.A., F. *Comiti*, A. Marion (2004) Local scouring at bed sills in a mountain river: The Plima River, Italian Alps, *Journal of Hydraulic Engineering, ASCE*, 130(3), 267-269. DOI: 10.1061/(ASCE)0733-9429(2004)130:3(267)
43. Lenzi M.A., Mao L., *Comiti* F. (2003) Interannual variation of suspended sediment load and sediment yield in an Alpine catchment, *Hydrological Sciences Journal*, 48(6), 899-915.
44. Lenzi M.A., *Comiti* F. (2003) Local scouring and morphological adjustments in steep channels with check-dam sequences, *Geomorphology*, 55, 97-109.
45. Lenzi M.A., Marion A., *Comiti* F. (2003) Local scouring at grade-control structures in alluvial mountain rivers, *Water Resources Research* 39(7), 1176-1188.
46. Lenzi M.A., Marion A., *Comiti* F., Gaudio R. (2002) Local scouring in low and high gradient streams at bed sills, *Journal of Hydraulic Research, IAHR*, 40(6), 731-739.

• **Journal Papers in refereed academic journals without impact factor**

1. Penna D., Mao L., *Comiti* F., Engel M., Dell'Agnese A., Bertoldi G. (2013) Hydrological effects of glacier melt and snowmelt in a high-elevation catchment. *Bodenkultur*, 64 (3-4), 93-98.
2. Dell'Agnese A., Mazzorana B., *Comiti* F., Von Maravic P., D'Agostino V. (2013) Assessing the physical vulnerability of check dams through an empirical damage index. *Journal of Agricultural Engineering*, 44(1), 9-16.
3. Rinaldi M., Surian N., *Comiti* F., Bussetini M. (2011). The morphological quality index (IQM) for stream evaluation and hydromorphological classification. *Italian Journal of Engineering Geology and Environment*, 11(1), 17-36.
4. Mao L., F. *Comiti*, M.A. Lenzi (2006) La resistenza al flusso in un torrente montano ad elevata pendenza con morfologia a step-pool. *Rivista di Ingegneria Agraria*, 3, 29-38.
5. Andreoli A., F. *Comiti*, M.A. Lenzi (2005). I torrenti con morfologia a step pool: analogie con alvei sistemati tramite opere trasversali. *Rivista di Ingegneria Agraria*, 3, 1-13.