# Giorgio Rosatti

List of Publications by Year
in descending order

| 23 papers | 649 citations | 759233<br>12 h-index | 677142<br>22 g-index |
|---|---|---|---|
| 30 all docs | 30 docs citations | 30 times ranked | 512 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | Two-dimensional simulation of debris flows in erodible channels. Computers and Geosciences, 2009, 35, 993-1006. | 4.2 | 153 |
| 2 | The Riemann Problem for the one-dimensional, free-surface Shallow Water Equations with a bed step: Theoretical analysis and numerical simulations. Journal of Computational Physics, 2010, 229, 760-787. | 3.8 | 72 |
| 3 | Consistency with continuity in conservative advection schemes for free-surface models. International Journal for Numerical Methods in Fluids, 2002, 38, 307-327. | 1.6 | 67 |
| 4 | Two-dimensional simulation of debris flows over mobile bed: Enhancing the TRENT2D model by using a well-balanced Generalized Roe-type solver. Computers and Fluids, 2013, 71, 179-195. | 2.5 | 56 |
| 5 | A well-balanced approach for flows over mobile-bed with high sediment-transport. Journal of Computational Physics, 2006, 220, 312-338. | 3.8 | 54 |
| 6 | Generalized Roe schemes for 1D two-phase, free-surface flows over a mobile bed. Journal of Computational Physics, 2008, 227, 10058-10077. | 3.8 | 39 |
| 7 | Semi-implicit, semi-Lagrangian modelling for environmental problems on staggered Cartesian grids with cut cells. Journal of Computational Physics, 2005, 204, 353-377. | 3.8 | 37 |
| 8 | An accurate and efficient semiâ€implicit method for sectionâ€averaged freeâ€surface flow modelling. International Journal for Numerical Methods in Fluids, 2011, 65, 448-473. | 1.6 | 21 |
| 9 | On the range of validity of the Exner-based models for mobile-bed river flow simulations. Journal of Hydraulic Research/De Recherches Hydrauliques, 2013, 51, 380-391. | 1.7 | 21 |
| 10 | A Web Service ecosystem for high-quality, cost-effective debris-flow hazard assessment. Environmental Modelling and Software, 2018, 100, 33-47. | 4.5 | 17 |
| 11 | A closure-independent Generalized Roe solver for free-surface, two-phase flows over mobile bed. Journal of Computational Physics, 2013, 255, 362-383. | 3.8 | 16 |
| 12 | Management of flood hazard via hydroâ€morphological river modelling. The case of the <scp>M</scp>allero in <scp>I</scp>talian <scp>A</scp>lps. Journal of Flood Risk Management, 2013, 6, 197-209. | 3.3 | 14 |
| 13 | Validation of the physical modeling approach for braided rivers. Water Resources Research, 2002, 38, 31-1-31-8. | 4.2 | 12 |
| 14 | High order interpolation methods for semi-Lagrangian models of mobile-bed hydrodynamics on Cartesian grids with cut cells. International Journal for Numerical Methods in Fluids, 2005, 47, 1269-1275. | 1.6 | 11 |
| 15 | Lateral bed load experiments in a flume with strong initial transversal slope, in subâ€and supercritical conditions. Water Resources Research, 2009, 45, . | 4.2 | 11 |
| 16 | Modelling the transition between fixed and mobile bed conditions in two-phase free-surface flows: The Composite Riemann Problem and its numerical solution. Journal of Computational Physics, 2015, 285, 226-250. | 3.8 | 10 |
| 17 | TRENT2Dâ‚›: An accurate numerical approach to the simulation of two-dimensional dense snow avalanches in global coordinate systems. Cold Regions Science and Technology, 2021, 190, 103343. | 3.5 | 9 |
| 18 | A mathematical framework for modelling rockâ€"ice avalanches. Journal of Fluid Mechanics, 2021, 919, . | 3.4 | 6 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | A cascadic conjugate gradient algorithm for mass conservative, semi-implicit discretization of the shallow water equations on locally refined structured grids. International Journal for Numerical Methods in Fluids, 2002, 40, 217-230. | 1.6 | 5 |
| 20 | Hyperconcentrated 1D Shallow Flows on Fixed Bed withÂGeometrical Source Term Due to a Bottom Step. Journal of Scientific Computing, 2011, 48, 319-332. | 2.3 | 5 |
| 21 | A new method for evaluating stony debris flow rainfall thresholds: the Backward Dynamical Approach. Heliyon, 2019, 5, e01994. | 3.2 | 5 |
| 22 | Uncertainty analysis of a rainfall threshold estimate for stony debris flow based on the backward dynamical approach. Natural Hazards and Earth System Sciences, 2021, 21, 1769-1784. | 3.6 | 2 |
| 23 | Equipping the TRENT2D model with aWebGIS infrastructure: A smart tool for hazard management in mountain regions. , 2016, , 819-826. | | 0 |