



The Vajont disaster: a 3D numerical simulation for the slide and the waves

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A very high resolution (5 m), 3D hydrostatic nonlinear numerical model was used to simulate the dynamics of both the slide and the surface waves produced during the Vajont disaster (north Italy, 1963), one of the major landslide-induced tsunamis ever documented. Different simulated wave phenomena like, e.g., maximum run-up on the opposite shore, maximum height, and water velocity were analyzed and compared with data available in literature, including the results of a fully 3D simulation obtained with a Smoothed Particle Hydrodynamic code. The difference between measured and simulated after-slide bathymetries was calculated and used in an attempt to quantify the relative magnitude and extension of rigid and fluid motion components during the event.