

Domenico Capolongo

Dip. Scienze della terra e geoambientali

Sezione di geomorfologia

Ricercatore

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Hillslope , fluvial and tectonic geomorphology

GIS

Remote sensing

Numerical modelling

RESEARCH AIMS/OBIETTIVI DI RICERCA

Understand the mechanics of the landscape at different spatial and temporal scales

Understand the coupling between climate, tectonics, vegetation and Landscape evolution

COLLABORATIONS/COLLABORAZIONI

Unibas: Schiattarella M., Giano I., Bentivenga M.

Uni Roma tre: Molin P., Giachetta E, Faccenna C.

Unich: Piacentini T.

UniPV: Zucca F.

CNR IRPI & ISSIA : Refice A. Wasowski, J., Santaloia F.

Lehigh University (USA): Pazzaglia F.

Tulane University (USA): Gasparini N.

MAIN RESULTS/PRICIPALI RISULTATI OTTENUTI

FUTURE AIMS/OBIETTIVI FUTURI

INVESTIGATING THE CONTRIBUTION OF LANDSLIDING (BOTH EARTHQUAKE AND RAINFALL TRIGGERED) TO LONG TERM EROSION RATES IN ACTIVE OROGEN.

DYNAMICS OF THE BEDROCK RIVER CHANNEL AND OF THE STREAM LONG PROFILE WITHIN THE FEEDBACK BETWEEN CLIMATE AND TECTONICS

MOUNTAIN LANDSCAPE EVOLUTION MODELLING USING SIGNUM (MATLAB TIN BASED NUMERICAL MODEL)

QUANTIFYING THE MORPHOLOGICAL SIGNATURE OF SLOW-MOVING LANDSLIDES IN THE EASTERN APENNINE MOUNTAINS, ITALY

DRAINAGE REORGANIZATION AFTER CALDERA FORMATION AND INCREASED SEDIMENT INPUT DUE TO VOLCANIC ACTIVITY. CASE STUDIES MT SOMMA (CAMPANIA) MT. VULTURE (BASILICATA)

MECHANICS AND GEOMORPHOLOGICAL EVOLUTION OF FLUVIO-KARST VALLEYS IN TECTONICALLY ACTIVE LANDSCAPE AND IN THE CONTEXT OF CLIMATE CHANGE.

LIST OF PAPERS/LISTA DELLE PUBBLICAZIONI

CAPOLONGO D, GIACHETTA E, REFICE A (2011). Numerical framework for geomorphological experiments. GEOGRAFIA FISICA E DINAMICA QUATERNARIA, vol. 34, p. 75-80, ISSN: 0391-9838

REFICE A, GIACHETTA E, CAPOLONGO D (2012). SIGNUM: A Matlab, TIN-based landscape evolution model. COMPUTERS & GEOSCIENCES, vol. 12, p. 293-303, ISSN: 0098-3004, doi:10.1016/j.cageo.2011.11.013

SCHIATTARELLA M, BENEDUCE P, CAPOLONGO D, DI LEO P, GIANO S.I, GIOIA D, LAZZARI M, MARTINO C (2008). Uplift and erosion rates from the southern Apennines, Italy. BOLLETTINO DI GEOFISICA TEORICA E APPLICATA, vol. 49 (2), p. 470-475, ISSN: 0006-6729