

Dr. Luca C. Malatesta

| | |
|------------------------|--|
| Contact | University of California Santa Cruz, Department of Earth & Planetary Sciences 1156 Highstreet, E&PS Santa Cruz, CA 95064, USA lcmalate@ucsc.edu lucamalatesta.weebly.com |
| Position | UC SANTA CRUZ mar. 2017 - present SNSF Postdoctoral fellow Project: Transient eustatic forcing of coastal bedrock rivers with Noah Finnegan UNIVERSITY OF GENEVA oct. 2016 - feb. 2017 Visiting scientist in the group of Sébastien Castellort |
| Education | CALIFORNIA INSTITUTE OF TECHNOLOGY oct. 2011 - sept. 2016 PhD in Geology Thesis: Impact of climate and tectonics on the morphodynamics of alluvial piedmonts, implications for sediment transfer and the stratigraphic record. Supervisors: Jean-Philippe Avouac, Michael P. Lamb ETH ZURICH sep. 2009 - aug. 2011 MSc in Geology Thesis: Landscape Evolution and Lateral Growth of the SW Tian Shan, Uzbekistan. Thesis supervisors: Sébastien Castellort, Vincenzo Picotti, Susan Ivy-Ochs ETH ZURICH sep. 2006 - aug. 2009 BSc in Earth Sciences Thesis: Numerical study of the plates and slabs dynamics in double subduction systems with one-sided accretion. Thesis supervisor: Taras Gerya |
| Research Interests | Sediment transfer from flood to geological timescales. Signal propagation in the sediment routing system. Hillslope and channel dynamics. Surface processes in active orogen settings. |
| Awards and Fellowships | <i>Swiss Geological Society Award</i> for the most outstanding Master's thesis in Earth Sciences, 2011 <i>Willi Studer Prize</i> for the best Master's studies in the department of Earth Sciences at ETH Zurich, 2011 <i>Early Postdoc.Mobility Fellowship</i> (1.5 year) from the Swiss National Science Foundation for the project "Transient eustatic forcing of coastal bedrock rivers", 2017 <i>Doc.Mobility Fellowship</i> (1 year) from the Swiss National Science Foundation for the project "Nucleation of waterfalls at intermittently shielded fault scarps", 2015 |
| Academic Services | Reviewer for <i>EPSL</i> , <i>Tectonophysics</i> , <i>Geomorphology</i> , <i>Quaternary International</i> Co-initiator of the Swiss Geoscience Master Congress (SGMC) and committee member of the first edition in November 2011 |
| Outreach | Class visits in the Pasadena Unified School District and neighboring K-12 schools to present and discuss current Earth Science topics 2012 - 2014 |

Teaching Experience VARIOUS GEOLOGY, CLASSES INCLUDING FIELD AT CALTECH
Teaching assistant 2012 - 2016

INTRODUCTORY LECTURE IN EARTH SCIENCES AT ETH ZURICH
Teaching assistant 2009 - 2011

E-FIELD GUIDE FOR TECTONIC SEDIMENTOLOGY IN THE PYRENEES
Creation of a Google Earth based field guide for the Spanish Pyrenean excursion "sedimentary rocks in the field" led by Sébastien Castelltort at ETH Zurich. 2011

Languages FRENCH native speaker ENGLISH advanced (C2) GERMAN advanced (C2)
DANISH pre-intermediate (B1) RUSSIAN beginner (A1.2)

Please check [ftp://ftp.gps.caltech.edu/pub/lmalates/pubs/](http://ftp.gps.caltech.edu/pub/lmalates/pubs/) for copies of current publications and manuscripts

Publications ARTICLES IN PREPARATION

Malatesta, L. C. and Avouac J.-P.; Contrasted river incision in north and south Tian Shan piedmonts due to different glacial overprint of high range topography; *in review*

Malatesta, L. C., Avouac, J.-P., Brown, N. D., Breitenbach, S. F. M., Pan, J., Chevalier, M.-L., Rhodes, E., Saint-Carlier, D., Zhang, W., Charreau, J., Lavé, J., Blard, P.-H.; Repeated cycles of piedmont aggradation and incision driven by climate variability during glacial periods in the Tian Shan; *in review*

Malatesta L.C., Lamb M. P.; Nucleation of waterfalls over intermittently alluviated active tectonic scarps; *in review*

PUBLISHED ARTICLES

Malatesta L.C., Prancevic J.P., Avouac J.-P.; 2017; Autogenic entrenchment patterns and terraces due to coupling with lateral erosion in incising alluvial channels; *J. Geophys. Res.*, v. 122, p. 335–355,, doi:10.1002/2015JF003797.

Olive J.-A., Behn M. D., **Malatesta L.C.**; 2014; Modes of extensional faulting controlled by surface processes; *Geophysical Research Letters*, Vol. 41, 6725–6733.

Malatesta L.C., Castelltort S., Mantellini S., Picotti V., Hajdas I., Simpson G., Berdimuradov A. E., Tosi M., Willett S.D.; 2012; Dating the Irrigation System of the Samarkand Oasis: a Geochronological Study; *Radiocarbon*, vol. 54, p. 91–105