



**SAPIENZA**  
UNIVERSITÀ DI ROMA



## **IAG/AIG-WG-TG Summer School 2016 on “Alps vs Apennines: Tectonic Geomorphology of Mountains ”**

*Italy: Western Alps (Peveagno, CN) – Central Apennines (Assergi, AQ)  
July 2-9, 2016*



### **Aim and scope**

The IAG-WG-TG Summer School 2016 is a training schools for students and early career scientists involved in tectonic geomorphology studies. It aims to offer a comprehensive overview of pioneering techniques, innovative and multidisciplinary approaches for meeting the growing needs of knowledge on both long term tectonic uplift and sudden geomorphological changes.

The Summer School includes lectures (2 days), laboratory and field activities (4 days). A group of expert teachers from different countries will present the state of the art on tectonic geomorphology and related methods (thermochronology, dynamic topography, geomorphometry and geomorphological mapping, radar interferometric applications, crustal mobility and seismotectonics, neotectonics and slope instabilities). Case studies from a diversity of geomorphotectonic environments will be analyzed and discussed. A rich program of field activity will be developed both in the Western Alps, symbol of a long-term evolution orogen, and in central Apennine, where recent seismic activity (L'Aquila earthquake, 2009) caused casualties, damages and sudden geomorphological changes.

## Summary of the context

The scientific debate on long-term tectonic uplift phenomena and sudden geomorphological changes is of overall great importance within Earth Sciences. Topics such as:

- uplift evaluation methods: thermochronology, geomorphometry, geodesy, geodiversity of tectonic processes and contexts;
- seismotectonic processes, structures and related landforms: structural geology and geomorphology, paleoseismology, seismology;
- slope instabilities and related risks: engineering geology, modelling, geothematic mapping

have been discussed in several separate sessions during the past conferences and meetings.

The need of interdisciplinary and field based formation leads the IAG-WG on Tectonic Geomorphology to this Summer School proposal. The Italian partners of IAG-WG offered the locations for encompassing most of the summer school topics in mountain contexts of higher geodiversity.

## Venue

Department of Earth Sciences, University of Turin, Italy.

## Organizing Committee

**Marco Bacenetti** - Università degli studi di Torino, Italy; **Marta Della Seta** - Università di Roma “La Sapienza”, Italy; **Emanuela Falcucci** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Paola Fredi** - Università di Roma “La Sapienza”, Italy; **Giandomenico Fubelli** - Università degli studi di Torino, Italy; **Fabrizio Galadini** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Marco Giardino** - Università degli studi di Torino, Italy; **Stefano Gori** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Luigi Perotti** - Università degli studi di Torino, Italy; **Francesco Troiani** - Università di Roma “La Sapienza”, Italy; **Andrea Wolter** - ETH Zürich

## Scientific Committee

**John Clague** - Simon Fraser University, Burnaby, Canada; **Tim Davies** - University of Canterbury, Christchurch, New Zealand; **Monique Fort** - Paris Diderot University, France; **Paola Fredi** - University of Roma “La Sapienza”, Italy; **Fabrizio Galadini** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Marco Giardino** - University of Turin, Italy; **Efthimios Karymbalis** - Harokopio University of Athens, Greece.

## Summer School Secretariat

**Giandomenico Fubelli, Luigi Perotti** - Department of Earth Sciences, University of Turin, Via Valperga Caluso, 35, 10125 Turin, Italy (tel. +390116705164; fax +39.0116708398; e-mail: [giandomenico.fubelli@unito.it](mailto:giandomenico.fubelli@unito.it); [luigi.perotti@unito.it](mailto:luigi.perotti@unito.it))

## Auspices

The Summer School is organized under the auspices of:

**International Association of Geomorphologists (IAG)**  
**Associazione Italiana di Geografia Fisica e Geomorfologia (AIGeo)**  
**Università degli Studi di Torino**  
**Università “La Sapienza”, Roma**  
**Istituto Nazionale di Geofisica e Vulcanologia (INGV)**

## Provisional Programme

**Saturday, July 2, 2016:** arrival of participants in **Turin**, registration, icebreaker reception.

**Sunday, July 3, 2016:** field trip in the Ligurian Alps.

**Monday/Tuesday July 4-5, 2016:** lectures and laboratory activity.

**Wednesday, July 6, 2016:** transfer to Central Italy and overnight L'Aquila urban trip

**Thursday, July 7, 2016:** geomorphological mapping in the Gran Sasso areas

**Friday, July 8, 2016:** analysis of paleoseismologic trench, morphological evidences of active tectonics

**Saturday, July 9, 2016:** large scale landscape evolution in active tectonic context

Farewell party and departure from **Rome**

## Invited speakers

**Doug Burbank**, ERI-UCSB, USA and **Monique Fort**, Paris Diderot University, France - *Lecture 1:* Tectonic geomorphology of mountains: principles, methods, and milestones examples on morphotectonics.

**Daniel Stockli**, Jackson School of Geosciences - *Lecture 2:* Uplift evaluation methods: thermochronology.

**Andrea Festa**, DST-UniTO, Italy - *Lecture 3:* Structural patterns, tectonic history of the Apennines.

**Claudio Faccenna**, UniRomaTre, Italy and **T.W. Becker**, University of Southern California, Los Angeles, USA – *Lecture 4:* Surface Fingerprints of Earth dynamics: dynamic and static contribution to surface topography.

**Michele Morelli**, ARPA-Piemonte, Italy - *Lecture 5:* Radar Interferometric applications for geomorphometry.

**John Clague**, Simon Fraser University - *Lecture 6:* Crustal mobility and seismotectonics of the Pacific NW

**Tim Davies**, Univ. Canterbury, NZ - *Lecture 7:* Neotectonics and slope instabilities.

**Ben Van Wik de Vries**, Univ Blaise Pascal, Clermont-Ferrand, France – *Lecture 8:* Interaction of endogenetic and exogenetic processes on volcano stability.

**Zbigniew Zwolinski**, AMU, Poland – *Lecture 9:* Geomorphometry and Geomorphological Mapping.

**Luigi Perotti**, UniTO, Italy – *Lecture 10:* Digital field mapping.

## Field trainers

**Marta Della Seta** - Università di Roma “La Sapienza”, Italy; **Carlo Esposito** - Università di Roma “La Sapienza”, Italy; **Emanuela Falcucci** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy;

**Giandomenico Fubelli** - Università di Torino, Italy; **Fabrizio Galadini** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Marco Giardino** - Università di Torino, Italy; **Stefano Gori** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy; **Marco Moro** - INGV, Istituto Nazionale di Geofisica e Vulcanologia, Italy;

**Tommaso Piacentini** – Università di Chieti, Italy; **Michele Saroli** – Università di Cassino, Italy.

## Summer School Fees

(including material, travels, accommodation and meals.)

**Early bird payment** (before February 29, 2016)

Participants

**650 € (single room\*), 600 (double room)**

**Full payment** (March 1 to June 15, 2016)

Participants

**800 € (single room\*), 750 (double room)**

\*Availability of single rooms is limited.

Participants are required to pay the fees by bank transfer (**see the attached registration form**)

## **Deadlines**

**Early bird registration**  
**Full registration**

**February 29, 2016**  
**June 15, 2016**

## **How to reach Turin**

**Torino International Airport:** <http://www.aeroporto.torino.it/en>  
**High speed railway:** <http://www.trenitalia.com/tcom-en>

## **Second Circular**

The second circular will be issued by the end of March 2016.

Further information may be found on the IAG WG on Tectonic Geomorphology website:

<http://www.geomorph.org/tectonic-geomorphology-working-group/>