

2016 Division Meeting

EGU Geomorphology Division

General Assembly, Vienna | 21/04/2016



Meetings | Publications | Outreach | www.egu.eu

Agenda | EGU GM Division meeting 2016

- General Assembly; some numbers and information
- GM Division Programme, planning and outcome, travel support
- Special Events
- Medals/Awards
- Where is GM going
- EGU Announcements
- Other Announcements



EGU General Assembly 2016 facts

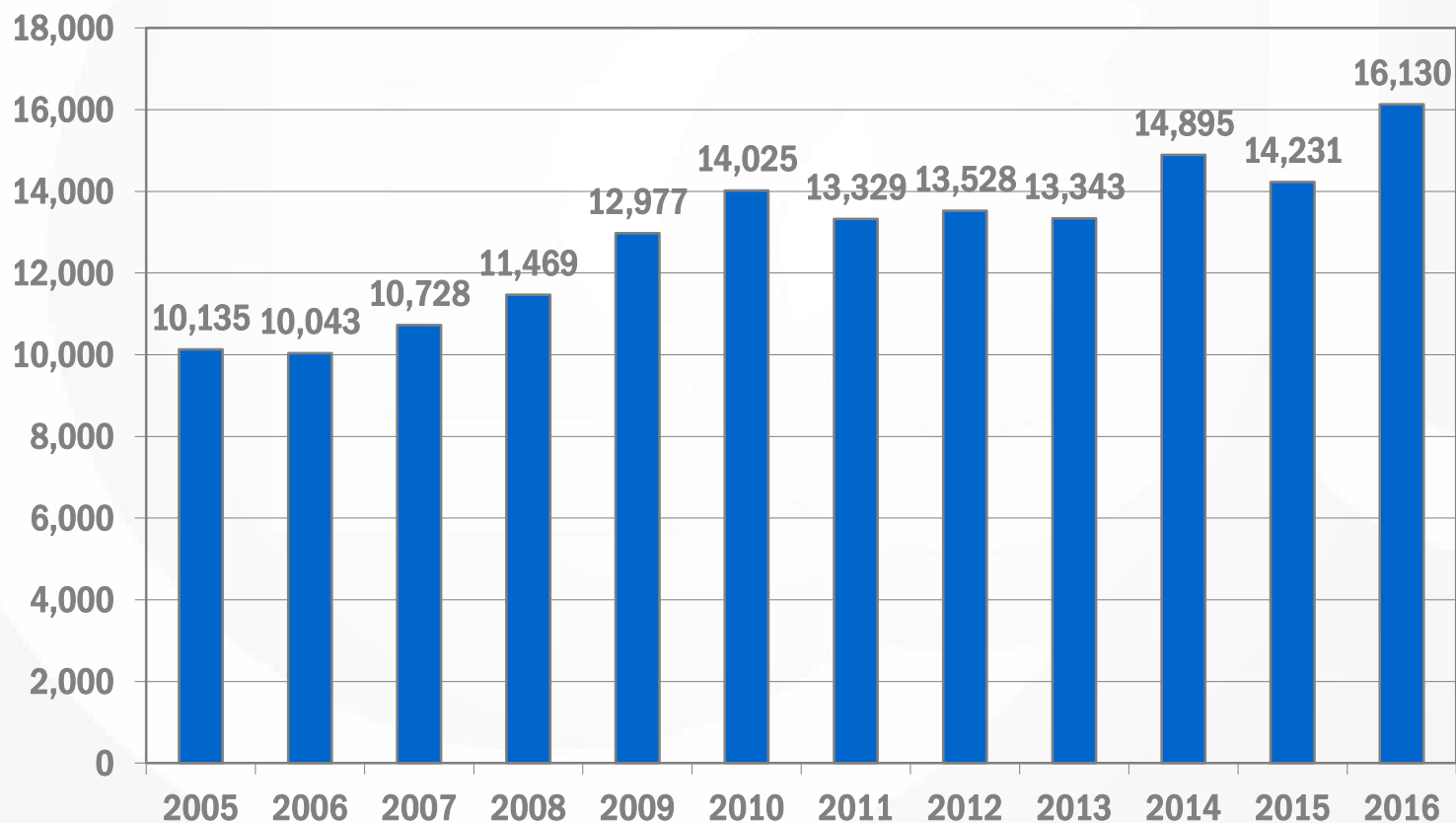
As of 14 April, the Assembly 2016 provides:

- 16,130 papers in programme | +13.34% (2015)
- 4,863 orals | 10,320 posters | 947 PICOs | ratio 30 / 64 / 6
- 619 unique scientific sessions | 321 side events*
- 10,988 registrations in advance | +23.68% (2015)

*Side events include: SSE (w/o US), OEM (w/o EOS), STM, FAN, AM

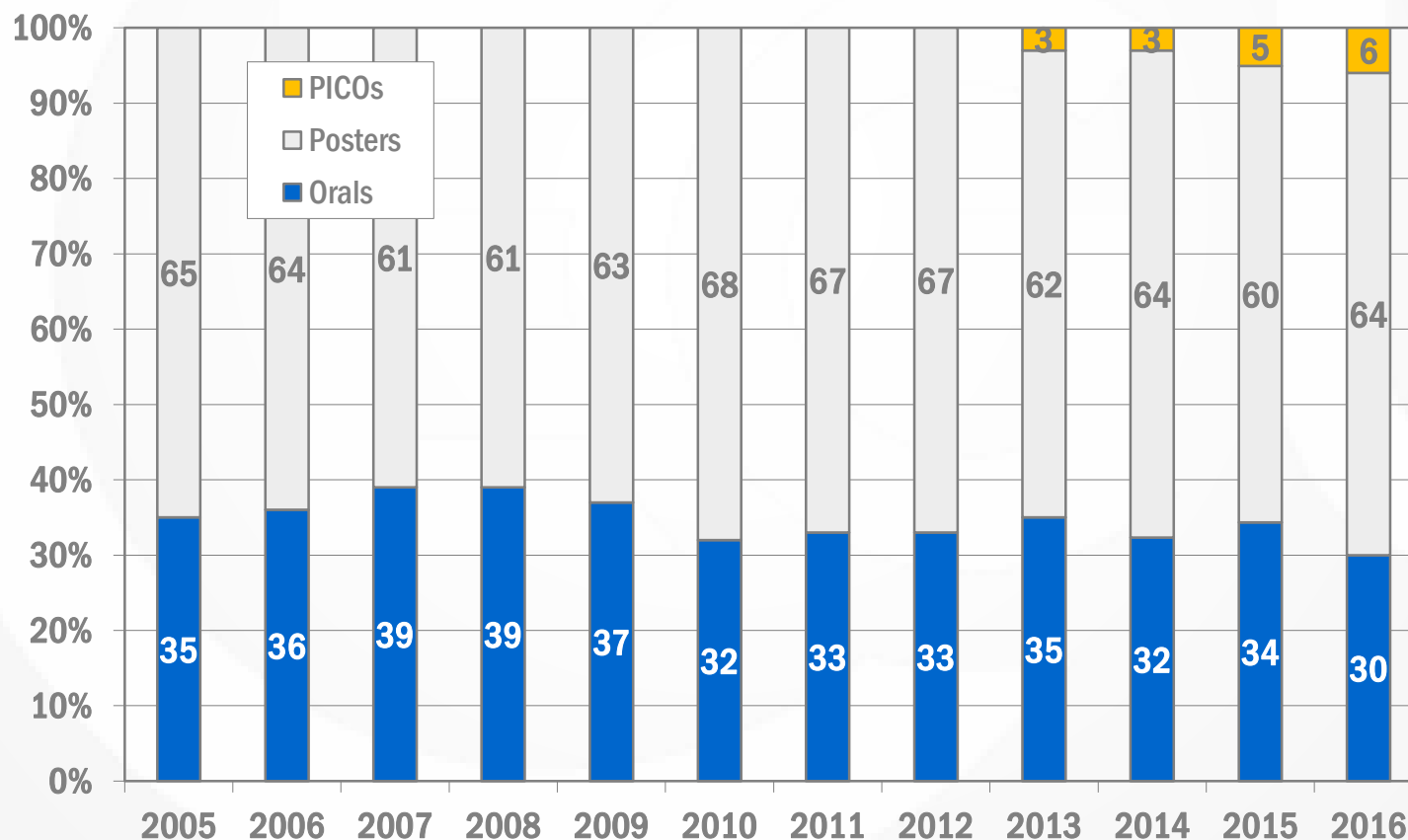


Papers in programme 2005–2016



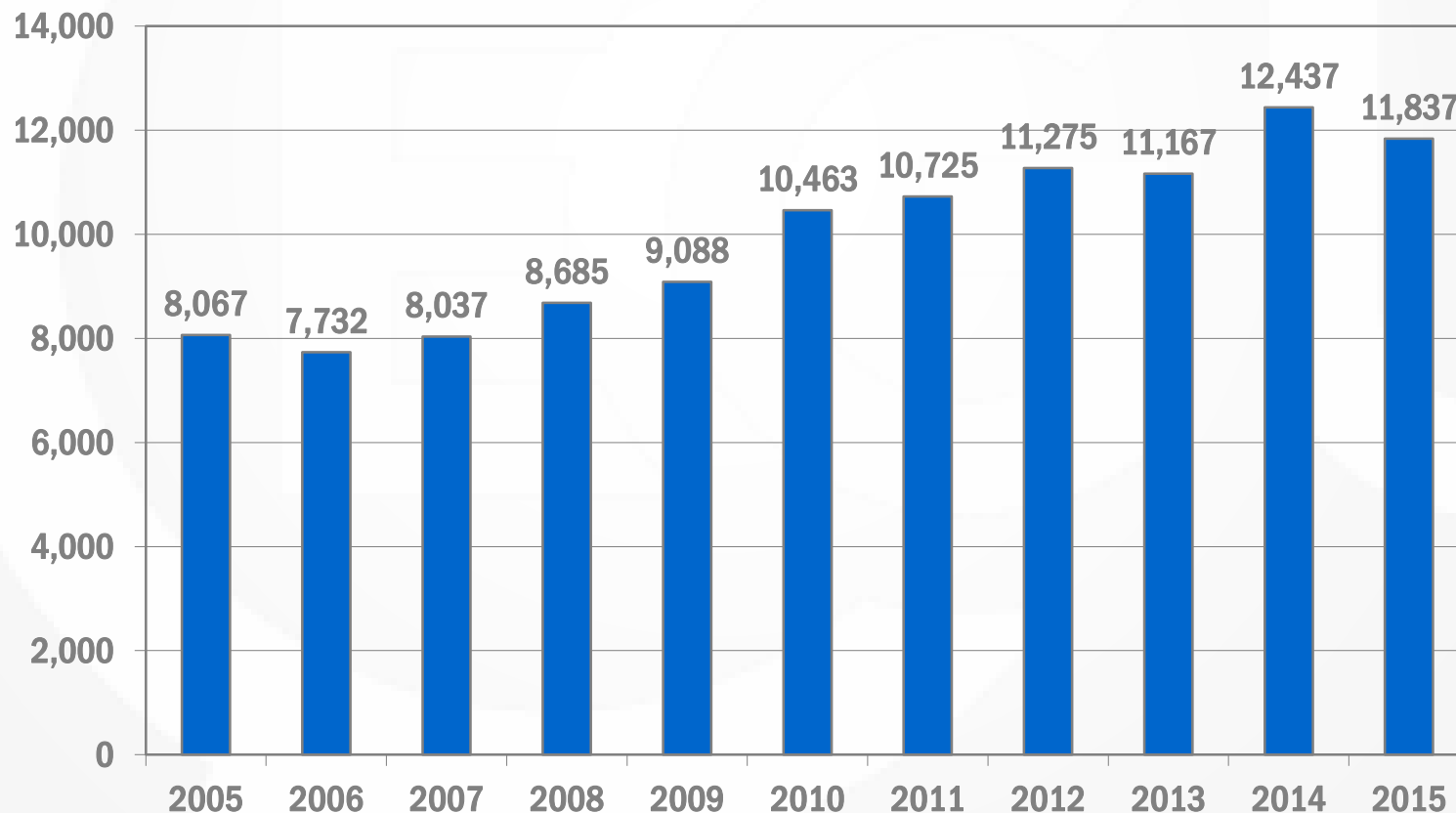


Presentation ratio 2005–2016





Participants at EGU General Assemblies 2005–2015



Theme of the 2016 General Assembly: Active Planet

- 5 dedicated lectures (Tue, Wed, Thu), Room 0.93
- Photo competition
- GeoCinema



Theme for the 2017 General Assembly?

Communication Activities at the General Assembly

EGU Today

- EGU Today is a daily newsletter highlighting interesting workshops, lectures and GeoCinema screenings, amongst activities at the Assembly
- Paper copies will be distributed daily and are available to download at www.egu2016.eu/egu_today

Blogs

- GeoLog, the EGU Blog Network & EGU Division Blogs will be sharing great sessions, research, interviews and more throughout the Assembly
- Follow them at geolog.egu.eu and blogs.egu.eu

Social Media

- Sessions will be advertised on Twitter (@EuroGeosciences) and Facebook (European Geosciences Union)
- Participants can ask questions & keep updated by following #EGU16 and division-specific hashtags: #EGU2016GM

Social Events for Early Career Scientists

- ECS corner at Opening Reception
- Early Career Scientist Lounge (Red Level), presence of Emma Shuttleworth
- GM division: social evening for Young Geomorphologists in Mozart's on Wed 20th April at 19.30, organised by the "Junge Geomorphologen" from Germany and the Postgraduate Forum of the British Society for Geomorphology.
- GM division Bagnold medal reception: ECS are cordially invited to attend

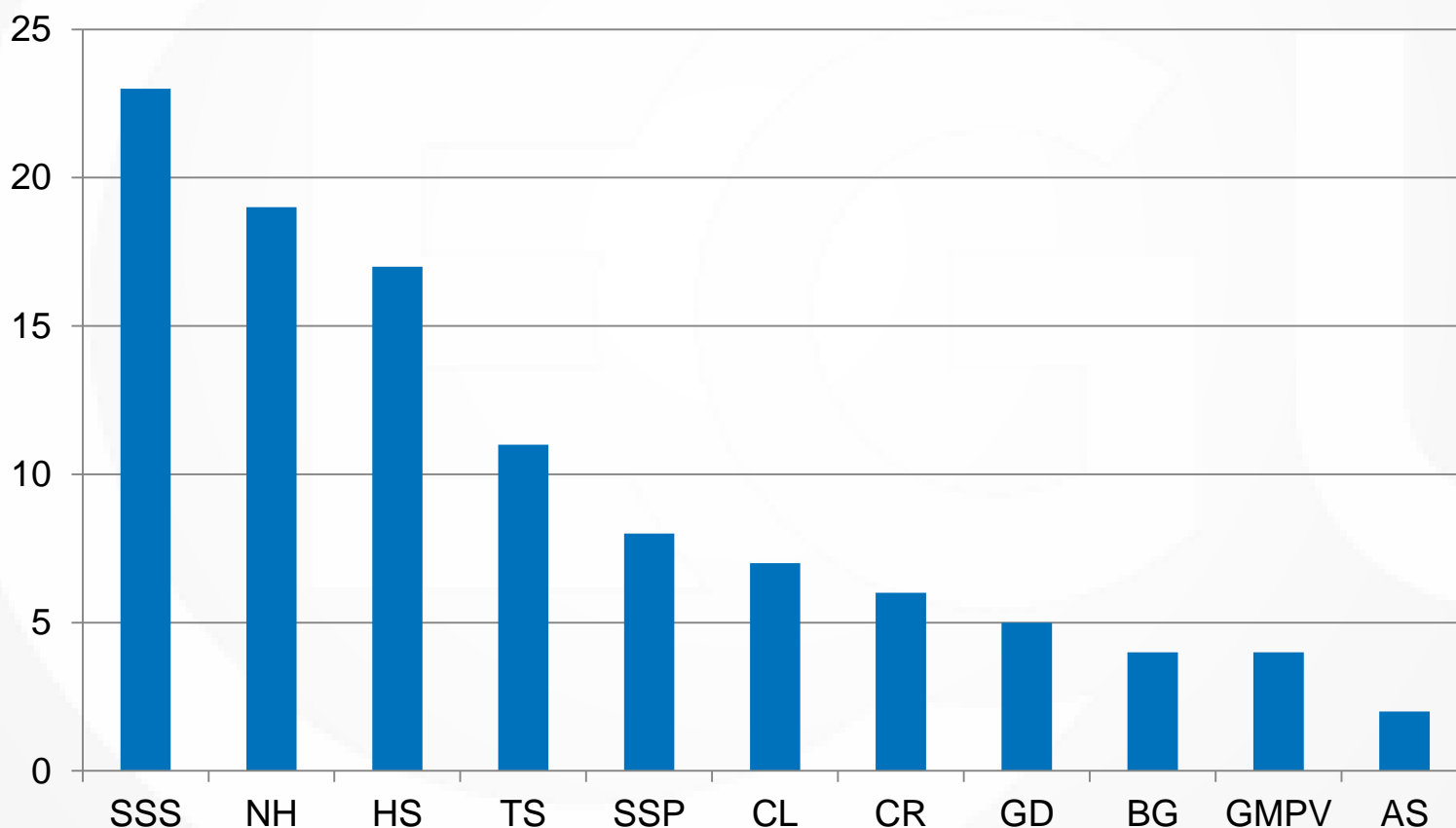
2016 GM Division programme

- 69 Sessions in total; 25 GM-led + 40 co-organised + 4 IE sessions
(2015 GA: 74 in total; 31 GM-led + 43 co-organised)
- 1680 abstracts; 551 in GM-led sessions
(2015 GA: 1342 abstracts; 494 in GM-led sessions - +25% / +11,5%)
- 25 oral slots ; 2 PICO sessions (17 sessions have 1 oral slot; 5 sessions have 2)
- On average 22.1 abstracts / session
- New rooms (due to reorganisation of Austria Centre):
K1 (200-seater), L4/5 (144-seater)

Sessions initially proposed

- 100 Sessions in total; 45 GM-led + 55 co-organised
- 1665 abstracts initially submitted; 641 in GM-led sessions

2016 GM programme; co-organised sessions



EGU Travel Support schemes

Scheme	Target audience	Approximate Funding allocation	Funding
Early Career Scientist's Travel Award (ECSTA)	Early Career scientists (world wide with earmarked funds for European economically disadvantaged (EED) countries)	EED: 30-35%	<ul style="list-style-type: none"> • Registration • APC • Maximum of €300 travel expenses
		Other countries: 50-60%	
Established Scientist's Travel Award (ESTA)	Established scientists (low and lower middle income countries)	10-20%	

GM Division travel support 2013 - 2016

2013: 12 YSTA applications; 6 awards; 50 % success
2013 overall success rate: 23 %

2014: 79 YSTA applications; 26 awards; 33 % success
2014 overall success rate: 28 %

2015: 31 YSTA applications; 10 awards; 32 % success
2015 overall success rate: 32 %

2016: 57 ECSTA applications, 17 awards; 30% success (1 ESTA)
2016 overall 248 ECSTA + 23 ESTA; success rate: 30%

Key to success:

- more & better applications
- consistent and positive evaluation
- implication of session conveners!

2016 GM Division Special Events

Workshops for Early-Career Scientists:

- *Digital Terrain Analysis of Anthropogenic Landscapes*
with Paolo Tarolli; Wed, 20 Apr, 13:30–15:00 / Room L4/5
- *Supervising and tutoring students*
with Taylor Schildgen, Jens Turowski, Veerle Vanacker, Marco Van De Wiel; Tue, 19 Apr, 17:30–19:00 / Room -2.85
- *Meet the Master*
with Andreas Lang; Wed, 20 Apr, 17:30–19:00 / Room -2.85
- *Publishing in Solid Earth and Earth Surface Dynamics: meet the editors,*
with Fabrizio Storti and Tom Coulthard; Fri, 22 Apr, 10:30–12:00 / Room -2.61
- *Using Bayesian modelling for integrating geochronologies* with Richard Chiverrell; Thu, 21 Apr., 17:30–19:00 / Room 0.31
- *Soil as a Record of the Past; Reading Soils from the Past,* with Ian Simpson, Sjoerd Kluiving, Thu, 21 Apr, 08:30–10:00 / Room -2.85

2016 GM Division Special Events

Medal Lectures (see further)

Union Session:

- *Interplays between the solid Earth and the hydrosphere, atmosphere, and biosphere* Wed, 20 Apr, 08:30–12:00 / Room E1

2016 GM Division Special Events

Interdisciplinary Events

- *Mind the Gap! Techniques to overcome multi-scale issues in geological and geomorphic processes* Mon, 18 Apr, 08:30–10:00 / Room 0.88
- *Interactions between tectonics and surface processes from mountain belts to basins* Fri, 22 Apr, 08:30–12:00 / 13:30–15:00 / Room K2
- *Geomorphic response to active tectonics: numerical and field-based approaches* Thu, 21 Apr, 13:30–17:00 / Room K2
- *Tectonics of sedimentary basins* Wed, 20 Apr, 13:30–17:00 / Room -2.20

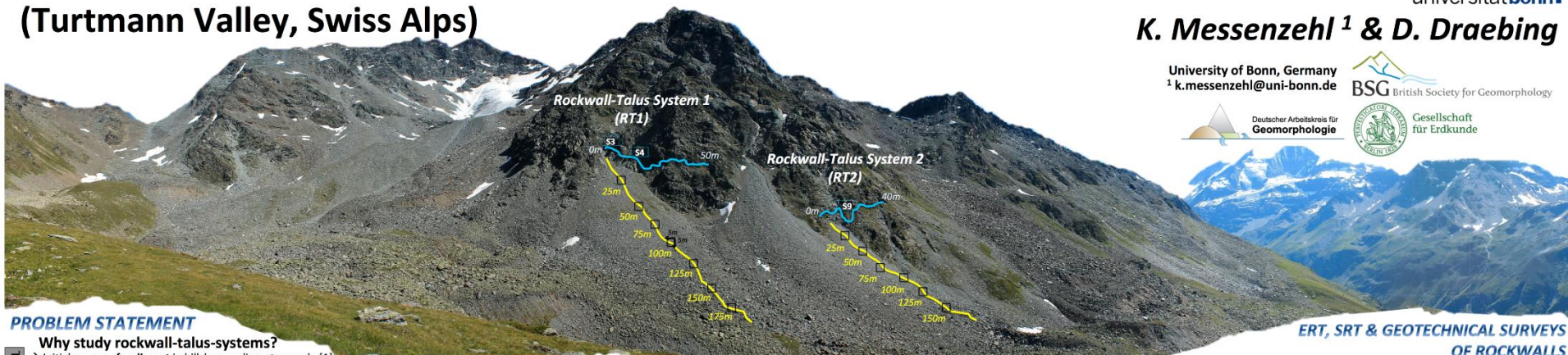
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GM Awards and Medals

- Outstanding Student Posters and PICO award (OSPP)
- Outstanding Early Career Scientist award
- Ralph Alger Bagnold medal

Multidisciplinary investigations on coupled rockwall-talus-systems (Turtmann Valley, Swiss Alps)



PROBLEM STATEMENT

Why study rockwall-talus-systems?
→ Initial source of sediment in hillslope sediment cascade [1]
→ Rock mechanical, hydrological and thermal characteristics control spatio-temporal efficiency of rockfalls [2, 3]
→ Control on sediment flux and storage

→ Major sediment storage in mountains [4]
→ Indication for rockfall activity (i.e. block size, timing, volume) and bedrock instability [5, 6]
Characterisation of rockfall efficiency (i.e. block size, shape) for long-term rockwall erosion and talus slope deposition.

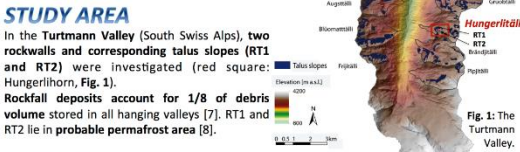


Fig. 1: The Turtmann Valley.

In the Turtmann Valley (South Swiss Alps), two rockwalls and corresponding talus slopes (RT1 and RT2) were investigated (red square: Hungeritall, Fig. 1). Rockfall deposits account for 1/8 of debris volume stored in all hanging valleys [7]. RT1 and RT2 lie in probable permafrost area [8].

STUDY AREA

How to investigate rockwall-talus-systems?

- Electrical Resistivity Tomography (ERT) and Seismic Refraction Tomography (SRT) along 40-50m transects with 1-1.25m electrode and geophone spacing (Fig. 2).
- Geotechnical surveys of discontinuities [9] and rock mass strength (RMS, [10]) along scanline S3, S4, S9.

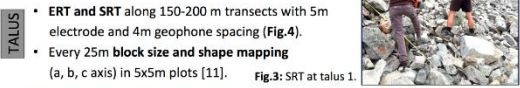


Fig. 2: ERT at eastern rockwall 2.

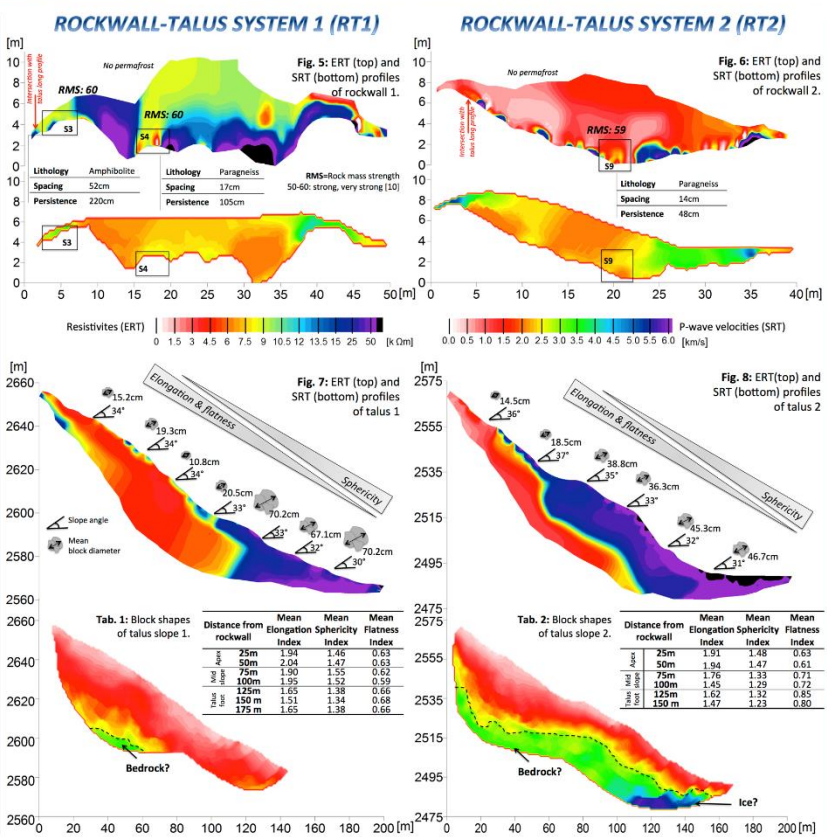
• ERT and SRT along 150-200 m transects with 5m electrode and 4m geophone spacing (Fig. 4).

• Every 25m block size and shape mapping (a, b, c axis) in 5x5m plots [11].

Fig. 3: SRT at talus 1.

- I. Rockfall size and shape depend on geotechnical rockwall properties
→ Small spacing, short persistences, Paragneiss → small, flat, elongated blocks
→ Large spacing, long persistences, Amphibolite → large, spherical blocks
- II. Rockfall process behaviour is reflected in talus block characteristics
→ Downslope increase of block sizes and sphericity → large kinetic energy of rockfalls
→ Small and flat particles at the talus' apex → near surface weathering of rockwalls
- III. The local existence of bedrock permafrost cannot be validated
→ No permafrost influence on rockwall stability
→ Unidirectional freezing at near-surface as effective breakdown mechanism [14]

MAJOR OUTCOMES



High resistivities (>10k Ω m) and high p-wave velocities (> 3km/s) (Fig.5) seem to correlate with dried bedrock consisting of Amphibolites (S3, Fig.10) with large joint spacing (52cm, S3) and long persistences (200cm, S3). In both rockwalls, no permafrost could be found (>5.3km/s would be expected for permafrost [12]).

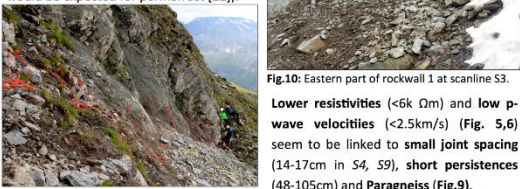


Fig.10: Eastern part of rockwall 1 at scanline S3.

Lower resistivities (<6k Ω m) and low p-wave velocities (<2.5km/s) (Fig. 5, 6) seem to be linked to small joint spacing (14-17cm in S4, S9), short persistences (48-105cm) and Paragneiss (Fig.9).

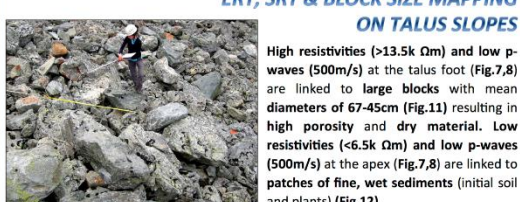


Fig.11: Block mapping at the foot of talus 1.

High resistivities (>13.5k Ω m) and low p-waves (500m/s) at the talus foot (Fig.7,8) are linked to large blocks with mean diameters of 67-45cm (Fig.11) resulting in high porosity and dry material. Low resistivities (<6.5k Ω m) and low p-waves (500m/s) at the apex (Fig.7,8) are linked to patches of fine, wet sediments (initial soil and plants) (Fig.12).

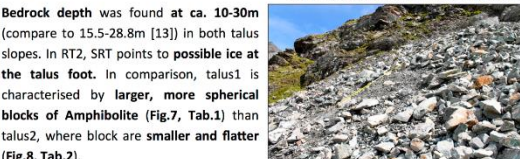


Fig.12: Small grain sizes at the apex of talus 1.

Bedrock depth was found at ca. 10-30m (compare to 15.5-28.8m [13]) in both talus slopes. In RT2, SRT points to possible ice at the talus foot. In comparison, talus1 is characterised by larger, more spherical blocks of Amphibolite (Fig.7, Tab.1) than talus2, where block are smaller and flatter (Fig.8, Tab.2).

GM Awards and Medals

GM Division Outstanding Young (Early Career) Scientist

An Early Career Scientists (ECS) is an undergraduate or postgraduate (Masters/PhD) student or a scientist who has received his or her highest degree (BSc, MSc, or PhD) within the past seven years*.

- * Provided parental leave fell into that period, up to one year of parental leave time may be added per child, where appropriate.

Recipients:

2012: Veerle Vanacker

2014: Robert Hilton

2016: **Pierre Valla**



GM Awards and Medals

Ralph Alger Bagnold Medal

... is reserved for individuals in recognition of their outstanding scientific contribution to the study of geomorphology, by means of:

- a substantive recent contribution to a particular research area
- the originality and innovative nature of the research
- timeliness and significance of the research

GM Awards and Medals

Ralph Alger Bagnold Medal – recipients

2008	Kelin Whipple	2009	Gerard Govers
2010	Friedhelm von Blanckenburg	2011	Stuart Lane
2012	Gregory Tucker	2013	James Kirchner
2014	Peter van der Beek	2015	Heather Viles
2016	Niels Hovius		



2016 GM Division Special Events

Medal Lectures

- *Penck lecture by Pierre Valla*
Wed, 20 Apr, 12:15–13:15 / Room L4/5
- *Ralph Alger Bagnold Medal Lecture by Niels Hovius*
Thu, 21 Apr, 19:00–20:00 / Room K1
- *Preceded by the GM Division Reception*
Thu, 21 Apr, 18:00–19:00 / Foyer K (Brown Level)

GM Awards and Medals

Ralph Alger Bagnold Medal committee

2015

Paul Bishop (president)

Heather Viles

James Kirchner

Gregory Tucker

2016 (proposal)

Andreas Lang (president)

Niels Hovius

Heather Viles

James Kirchner

(ex-officio: Peter van der Beek, Alberto Montanari / Özgür Karatekin)

... approval required

GM Awards and Medals

Be involved!

- Volunteer as a judge for the OSPP award;
- Nominate promising young colleagues as Outstanding Early Career Scientist;
- Nominate outstanding members of the geomorphology community for the Ralph Alger Bagnold medal;
- EGU is sensitive to (gender) diversity in its awards!

Deadline: **15 June**

Simple nomination procedure (1/2 page – 1 page nomination letter, CV, selected bibliography, supporting letters)

All information at: <http://www.egu.eu/awards-medals/>

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GM Science Officers

Peter van der Beek (president)

gm@egu.eu

Jens Turowski (deputy, OSPP coordinator)

Kristen Cook (NH)

Dan Parsons (HS, SSP)

Taylor Schildgen (TS, GD)

Arjen Stroeven (CL, CR)

Veerle Vanacker (SSS)

Marco Van De Wiel (HS, BG)

ECS representative: **Emma Shuttleworth**

Elections for division president this autumn!

(nominations: September; approval by council: October; election:
November)

GM Early Career Scientist Representative

- Current ECS representative for GM: **Emma Shuttleworth**
- Would prefer to be a team (practice in several other divisions)
- Early Career Scientists – get involved!
- Get in touch with Emma ...

GM Strategy

- Comprehensive coverage of geomorphology
- Raise the profile of geomorphology / Earth surface science in Geosciences and beyond
- Work across boundaries with other disciplines / divisions to foster interfaces
- Consolidate EGU as the annual geomorphology assembly
- Develop outreach beyond the EGU General Assembly: ESurf journal, summer schools, topical conferences, ...
- Develop collaborations with other groups and societies promoting geomorphology (IAG, AGU EPSP, National European Societies ...); co-organised sessions at meetings, sponsoring training courses.

GM Division – where are we going

- Sustainable growth
- Increasing quality
- Structuring activities
- Supporting communities
- Building Early Career and Social Networks

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GA Survey

www.egu2016.eu/feedback

- Distribution:
 - via email to participants and EGU members
 - GA
 - links on social media & blog
 - egu2016.eu website
 - Flyers/cards in Vienna
- Survey live during GA and until mid June



2017 General Assembly – GM Programme

- Session proposals asap, deadline September
- Bottom-up approach; no carrying over of sessions
- Encouraged:
 - Co-organized sessions
 - Sponsored sessions/speakers
 - Interdisciplinary Events
- Session proponents must work to solicit abstracts & ensure delivery
- Session chair duties also include:
 - Travel support selection
 - OSPP

EGU Support for conferences (other than GA)

- Galileo Conferences
- Co-sponsored meetings
 - Conference series
 - Topical meetings
 - Workshops
 - Training schools
 - External meetings
- 2 deadlines for applications : 31 July, 31 December
- See <http://www.egu.eu/meetings/co-sponsored-meetings/> for all information

Galileo Conferences

Purpose of Galileo conferences:

- Bring together up to 100 participants for a 3-5 days meeting to discuss a well-focused cutting-edge topic at the frontier of geosciences research in a stimulating environment.
- Possibility to publish a special Galileo Conference proceeding issue in one of the EGU journals

Support:

- EGU is putting at disposal the conference organization tools; web hosting, abstract, programme and registration management.
- EGU provides comprehensive organisational support by organizing e.g. venue, poster boards, catering, Wi-Fi facilities, etc. Thereby the organising committee can fully focus on the scientific aspects of the conference.
- Support for Early Career Scientists (up to 5000€)
- EGU is covering a potential deficit of the event.

Galileo Conferences

Rigorous review Process

2015 call: 9 proposals – 4 rejected in 1st round (initial) review ; 4 in 2nd round review; 1 under negotiation for possible final approval:

“From process to signal – advancing environmental seismology”,
proponent Jens Turowski

Proposed for June 2017

See: <https://www.egu.eu/meetings/galileo-conferences/>

Outreach and Policy

- **Expertise database;** the new Science Policy Fellow, Sarah Connors, asks EGU members who want to become more involved with policy to register on the new EGU expertise database

www.egu.eu/policy/expertise

Contact email: policy@egu.eu; Website: www.egu.eu/policy

- **Public engagement grants;** Two excellent projects “to celebrate and recognise science communication in the Earth, planetary and space sciences” were selected for 2016, to be announced at 12:15 on Friday. Applications for 2017 are welcome (after November) at: <http://www.egu.eu/user-area/peg/>.

Other Announcements

- EGU GM Blog and Social events for young geomorphologists (Jan-Hendrik Blöthe & Sabine Kraushaar)
- Steepest Descent
- Earth Surface Dynamics (Tom Coulthard)
- News from IAG (Mauro Soldati, IAG Vice-president)
- Jean-Claude Flageollet Award (Thomas Glade, CERG President)
- Subitop (Micha Dietze, GFZ)

EGU Blogs » Divisions » Geomorphology

Geomorphology

Your contributions
come!

Unwind your EGU stress

EGU Guest blogger · April 20, 2016



Solmaz Mohadjer, PhD student at the University of Bonn, shares her experience of refreshing your knowledge at EGU while unwinding your stress.

More than meets the "I": The Retirement of a Mentor – Young Scientists and Their Inheritance

Sabine Kraushaar · March 3, 2016



A systemic view with the f

In preparation for the laudation of her retiring mentor – Professor Richard Dikau – Katharina Eibisch from the University of Bonn (Germany) thought about some life lessons she learned throughout her first year as a young researcher.

– written by Katharina Eibisch, University of Bonn –

Geomorphology (GM)

10th international Young Geomorphologists' Workshop

Jan Blöthe · March 19, 2016

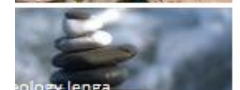


The German Young Geomorphologists

invite all interested young researchers in geomorphology and related fields to join
the **10th international Young Geomorphologists' workshop**

at Werbellinsee, Germany (~1 hour North of Berlin)

27th - 29th May 2016



Social Event for Geomorphologists



Thanks for
joining in!!

Around 100 geomorphologists
(young and a bit younger) met at the
Mozart's for the 3rd year.

Good spirit,
great fun.



Steepest Descent

Saturday, April 23rd,
University of Vienna

- Joshua West
- Sanjeev Gupta
- Michelle Koppes

Register at:

[www.brownpapertickets.com/
event/2473901](http://www.brownpapertickets.com/event/2473901)



Steepest Descent

2016

Saturday, April 23rd, 2016

University of Vienna, Oskar-Morgenstern-Platz 1, Room Sky Lounge
U-Bahn **U2** & **U4**: Schottenring



09:00

Welcome

with coffee and croissants

09:15

Joshua West, University of Southern California

The imprint of erosion on chemical weathering, and its relevance for the long-term carbon cycle and climate

10:30

Coffee break

and discussion around your posters

11:00

Sanjeev Gupta, Imperial College London

Reconstructing ancient landscapes on Mars: Curiosity's exploration of Gale crater.

12:15

Lunch break

and more discussion around your posters

13:15

Michele Koppes, University of British Columbia

When do glaciers shape mountains?

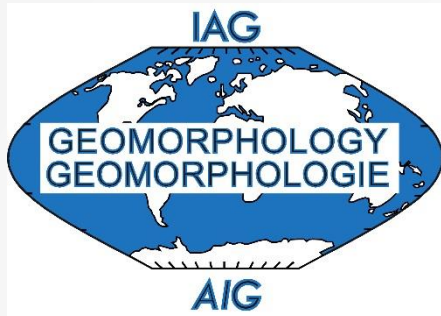
14:30

Closing discussion

and pop-ups to briefly showcase your research and observations

Registration and information at www.brownpapertickets.com/event/2473901
40€ (25€ for students and postdocs) includes coffee and lunch.

contact: steepestdescentmeeting@gmail.com



**International Association of Geomorphologists
Association Internationale des Géomorphologues**

**THE IAG TRAINING
PROGRAMME
Open Calls for IAG Grants**

**Mauro Soldati
IAG Vice-President and Training Officer
soldati@unimore.it**



The
Geological
Society

Workshop on Martian Gullies and their Earth Analogues

*Co-organized by the
IAG Planetary Geomorphology Working Group*
London, UK, 20-21 June 2016

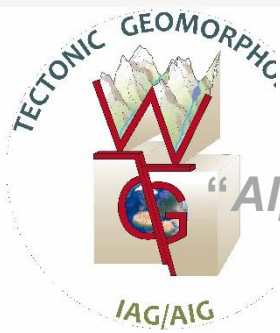


**2 IAG GRANTS of 250 euros
to YOUNG GEOMORPHOLOGISTS
(under 35) WORLDWIDE (except UK)**

**DEADLINE FOR GRANT APPLICATION:
10 MAY 2016**

**DETAILED INFORMATION:
<http://www.geolsoc.org.uk/martiangullies>**

Applications to be submitted to Marta Della Seta marta.dellaseta@uniroma1.it



IAG Tectonic Geomorphology Working Group Summer School 2016

“Alps vs. Apennines: Tectonic Geomorphology of Mount



Italy: Western Alps – Central Apennines
2-9 July 2016



2 IAG GRANTS OF 400 euros
to YOUNG GEOMORPHOLOGISTS
(under 35) WORLDWIDE (except
Italy)

- **DEADLINE FOR GRANT APPLICATION: 10 MAY 2016**
- **DETAILED INFORMATION ON PROGRAMME AND FEES ARE AVAILABLE ON THE IAG WEBSITE:**

<http://www.geomorph.org>

Applications to be submitted to Marta Della Seta
marta.dellaseta@uniroma1.it

European Geosciences Union / Council of Europe
FORM-OSE Post-graduate Training School 2016

"Landslides and other Geological Hazards in Active Volcanic Environments"

4 - 9 July 2016, Ponta Delgada (São Miguel Island - Azores), Portugal

1 IAG GRANT of 400 euros to YOUNG GEOMORPHOLOGISTS
(under 35) WORLDWIDE (except Portugal)

DEADLINE FOR GRANT APPLICATION: 10 MAY 2016

DETAILED INFORMATION: <http://formose2016.wix.com/formose2016>

<http://www.geomorph.org>

Applications to be submitted to Marta Della Seta marta.dellaseta@uniroma1.it



Council of Europe - EUR-OPA Major Hazards Agreement
European Centre on Geomorphological Hazards
Centre Européen sur les Risques Géomorphologiques



Jean-Claude Flageollet Award



The Award is offered in memory of Professor Jean-Claude Flageollet, founder of the CERG and Professor of Geomorphology and Natural Hazards at University of Strasbourg, and in recognition of his outstanding research and training activity carried out in the field of geomorphological hazards.

The Award will be delivered on a yearly basis since 2016.

Potential awardees are PhD students whose research project focuses on geomorphological hazards (landslides, floods, coastal erosion) and who participate in the EGU General Assembly.



The 2016 Jean-Claude Flageollet Award



To

MANON BESSET

CEREGE, University of Aix-Marseille

in recognition of her young career on
*'The analysis of river delta morphodynamics,
vulnerability and rehabilitation'*



PhD student in Coastal Geomorphology

Research topic: Recent morphodynamics changes affecting sixty river and fluvio-marine deltas through the analysis of the correlation between coastal erosion and temporal trends of extreme events (storms and cyclones, rising sea level, and major anthropogenic impacts, notably sediment supply deficit from rivers to their deltas arising from retention by dams, dredging, and canalization).

The 2016 Jean-Claude Flageollet Award



To

ODIN MARC

IEES, GFZ / University of Potsdam

in recognition of his young career on
*'The understanding and prediction of coseismic
and post-seismic landsliding'*



PhD student in mountain geomorphology and active tectonics

Research topic: Developing a quantitative understanding on how earthquakes can induce landslides in tectonically active regions, by integrating seismological understanding of ground shaking into landslide hazard prediction, and by combining remote sensing with geophysical techniques (GPS, seismic ambient noise correlations) to monitor and forecast the evolution of landslide susceptibility after major earthquakes.

15 ESR positions for Earth scientists

SUBITOP – a Marie Curie-Skłodowska Actions ETN project

www.subitop.eu

Train 15 Early Career Researchers in concepts, techniques, management skills, connections.
Advance scientific understanding of how surface processes interact with crustal tectonics
and mantle geodynamics at different length- and time- scales in subduction systems.

34
supervisors

15
Early Stage
Researchers

15
Private Sec-
tor Partners

15
Partner
Schools

GFZ Potsdam

University Rennes

University Oslo

ETH Zürich

University Utrecht

University Edinburgh

CSIC Barcelona

University Roma Tre

University Durham

University Montpellier