

# 2017 Division Meeting

EGU Geomorphology Division

---

General Assembly, Vienna | 27/04/2017



---

Meetings | Publications | Outreach | [www.egu.eu](http://www.egu.eu)

## **Agenda | EGU GM Division meeting 2017**

- General Assembly; some numbers and information
- GM Division Programme, planning and outcome, travel support
- Medals / Awards
- Elections autumn 2017: EGU president + General Secretary, GM president, ECS representatives
- EGU Announcements
- Other Announcements

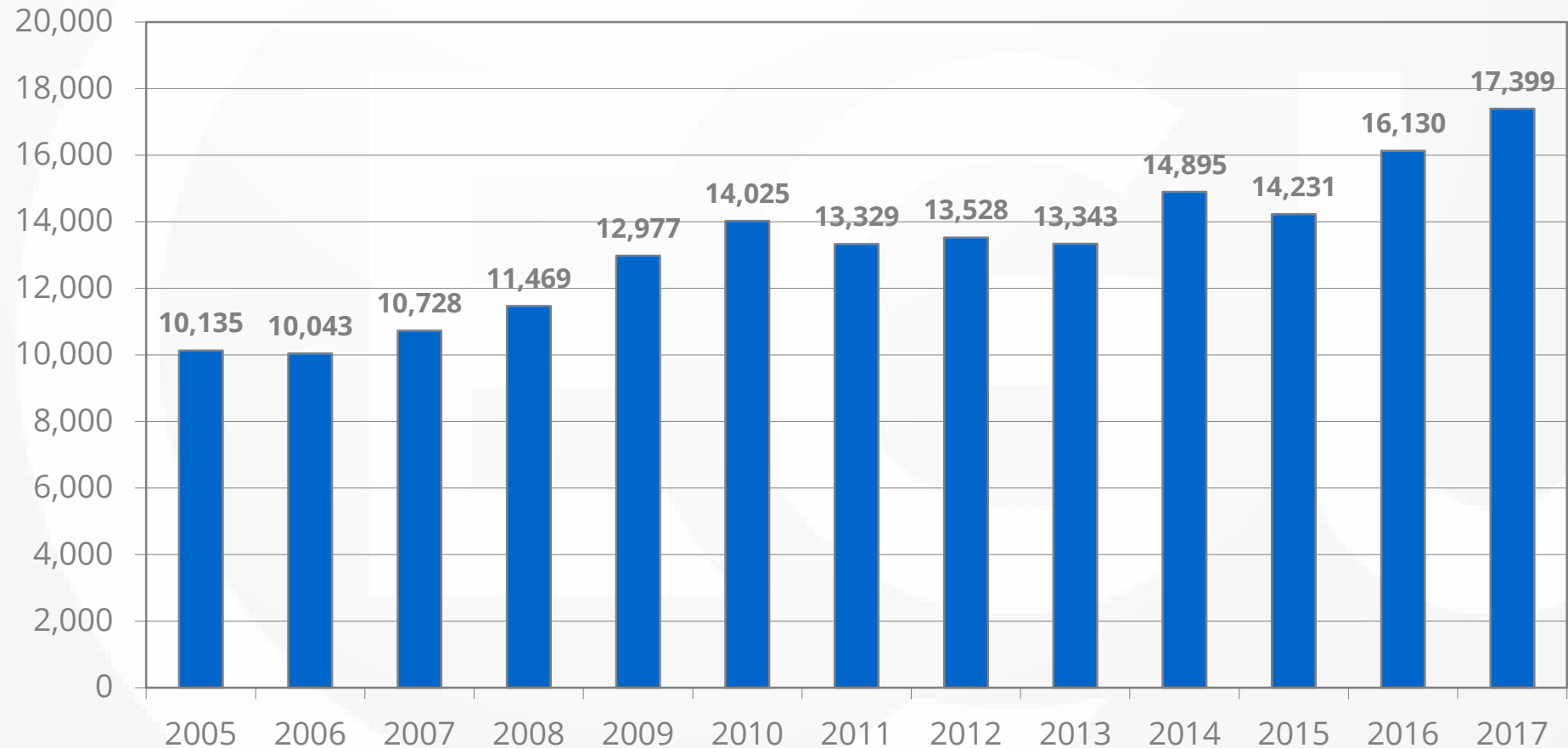
## EGU General Assembly 2017 facts

As of 19 April (17:01), the Assembly 2017 provides:

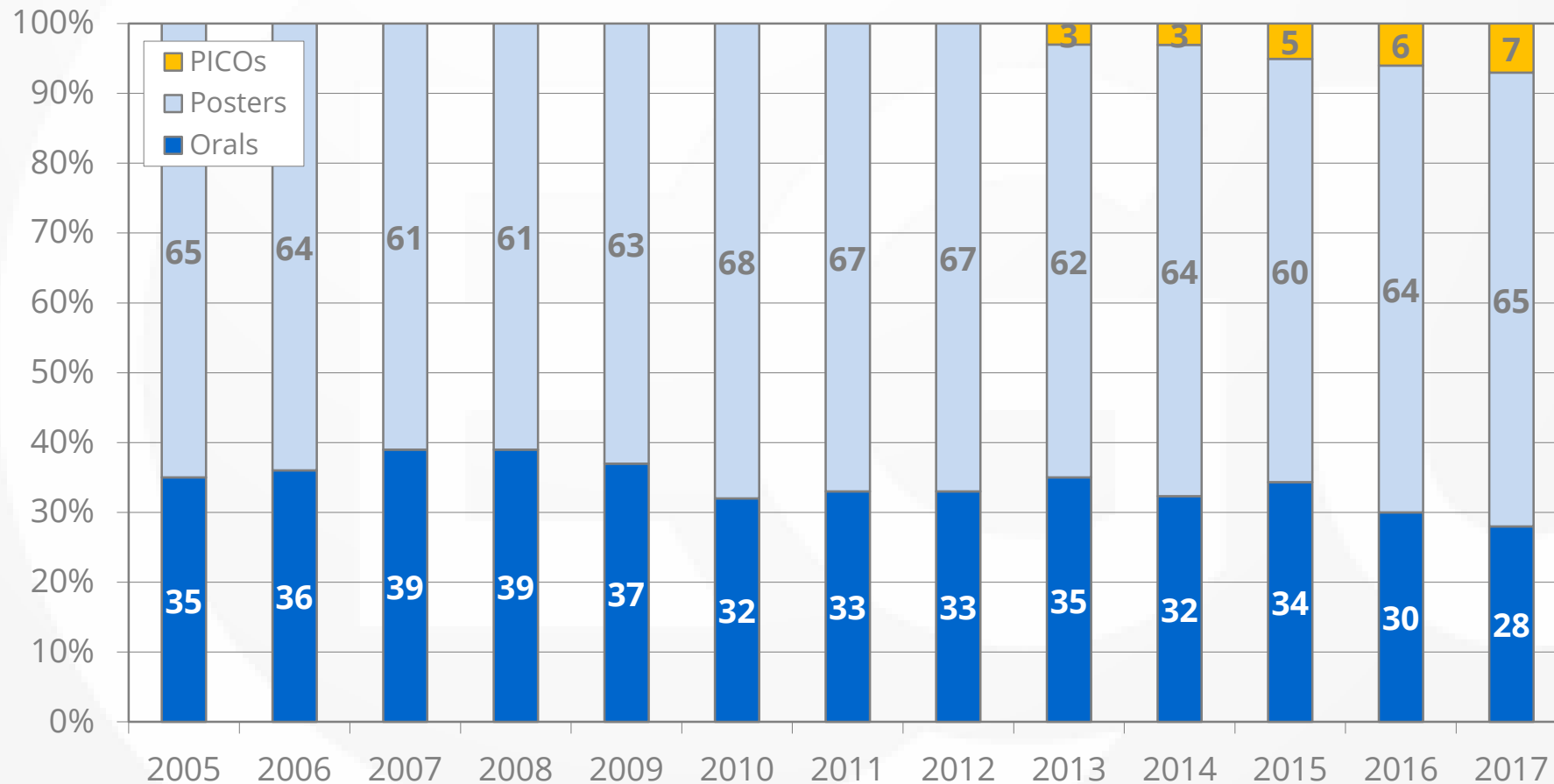
- 17,399 papers in programme | +7.87% (2016)
- 4,849 orals | 11,312 posters | 1,238 PICOs | ratio 28 / 65 / 7
- 11,331 registrations in advance | +3.55% (2016)
- 649 unique scientific sessions | 88 short courses | 322 side events\*
- 383 out of 649 scientific sessions are co-organized (59%)
- The 383 co-organized include 12 IE sessions with 261 presentations
- Original sessions: 1,432; 1,059 still active, 373 withdrawn
- Withdrawn: 356 scientific sessions and 17 side events

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

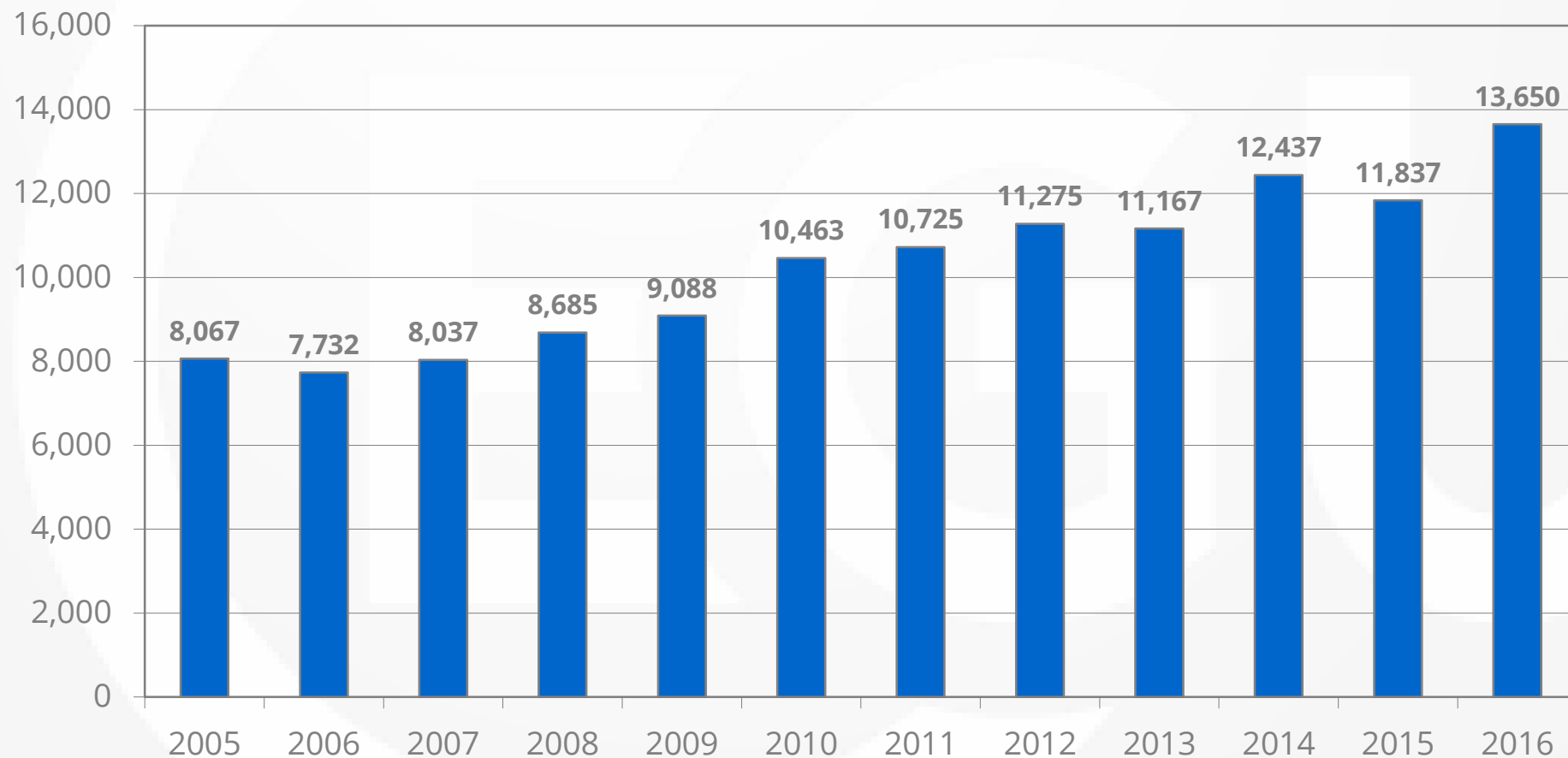
## Papers in programme 2005–2017



## Presentation ratio 2005–2017



## Participants at EGU General Assemblies 2005–2016



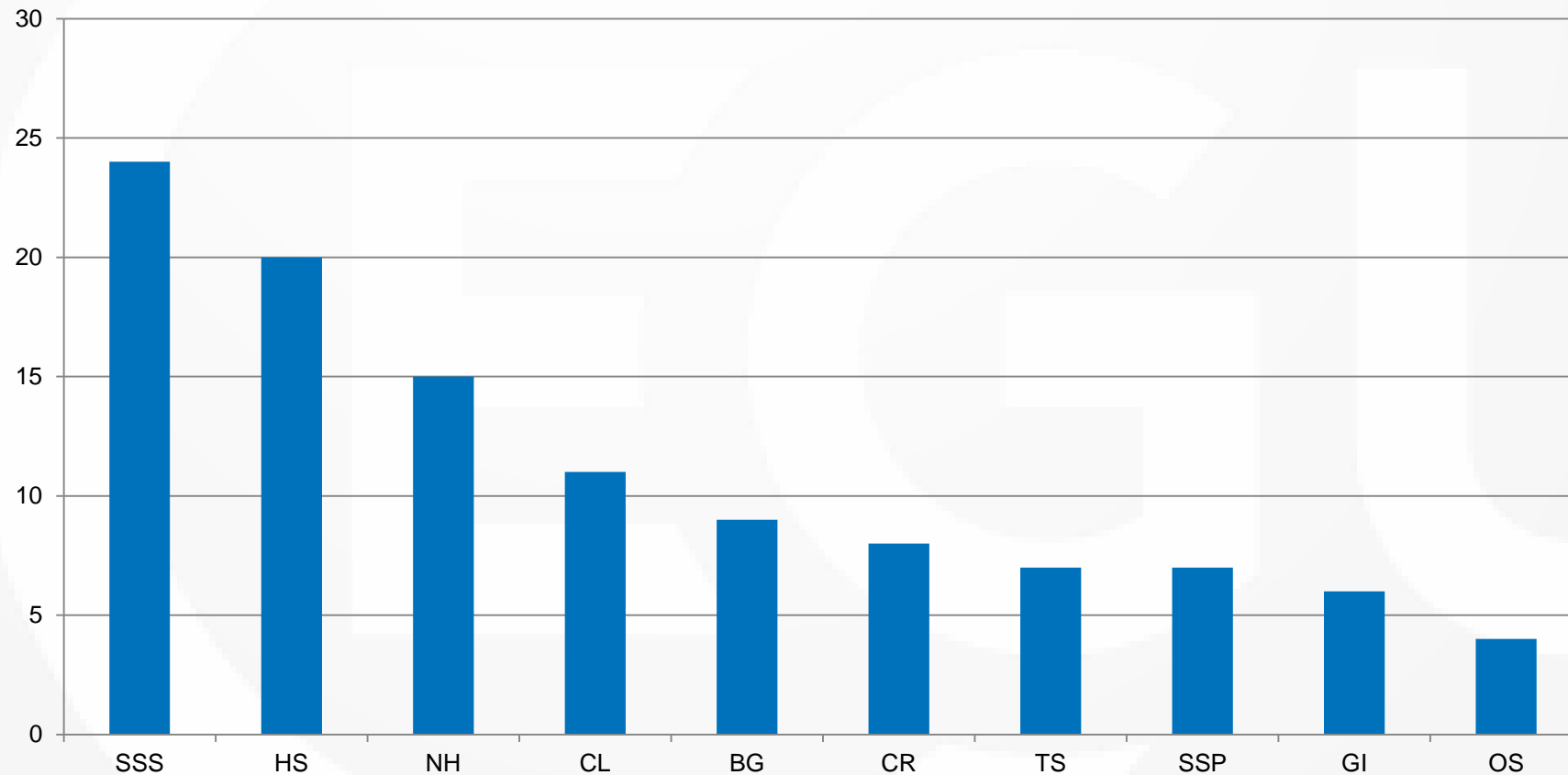
## 2017 GM Division programme

- 63 Sessions in total; 29 GM-led + 34 co-organised (including 1 IE session)  
(2016 GA: 69 in total; 25 GM-led + 40 co-organised + 4 IE sessions)
- 1634 abstracts; 772 in GM-led sessions (2016  
GA: 1680 abstracts, 551 in GM-led sessions; -2.8% / +40%)
- 34 oral slots (+9) ; 3 PICO sessions (18 sessions have 1 oral slot; 8 sessions have 2)
- On average 26.6 abstracts / session
- GM rooms this year: L3 (280-seater), N1 (175-seater)

### Sessions initially proposed

- 92 Sessions in total; 45 GM-led + 47 co-organised
- 1637 abstracts initially submitted; 728 in GM-led sessions

## 2017 GM programme; co-organised sessions





## EGU Travel Support schemes

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

## **GM Division travel support 2014 - 2017**

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 success rate: 30%

**2017: 57 ECSTS applications, 13 awards; 23% success (1 ESTS)**  
2017 overall 249 ECSTS + 25 ESTS; success rate: 24%

Key to success:

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

## **Agenda | EGU GM Division meeting 2017**

- General Assembly; some numbers and information
- GM Division Programme, planning and outcome, travel support
- **Medals / Awards**
- Elections autumn 2017: EGU president + General Secretary, GM president, ECS representatives
- EGU Announcements
- Other Announcements



**Stefanie Tofelde<sup>1\*</sup>, Sara Savi<sup>1</sup>, Andrew Wickert<sup>2</sup>, Hella Wittmann<sup>3</sup>, Manfred Strecker<sup>1</sup>, Ricardo Alonso<sup>4</sup>, Taylor Schildgen<sup>3</sup>**

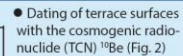
\* tofelde@uni-potsdam.de

## Analysis of terrace ages



However, so far, little is known about how changes in global climate on multi-millennial timescales affected sediment dynamics in regions far from major glaciers and ice sheets. Several recent studies in the Central Andes, for example, have linked terrace formation to changes in precipitation associated with precessional climate forcing (e.g. Schildgen et al., 2016; Steffen et al., 2010). In this study, we investigate the timing of fluvial fill terrace formation in the Quebrada del Toro, an intermontane basin located in the Eastern Cordillera of the southern-central Andes in NW Argentina (Fig. 1).

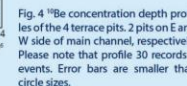
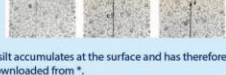
### Inflationary surfaces



- 4 depth profiles on different terraces (Fig. 3 A&B)

- Sampling of either exclusively sand (0.25 - 0.5 mm) or

Fig. 2 CRN in-situ production decreases exponentially with depth. By fitting an exponential curve to the samples, the surface exposure age can be calculated.



## Results

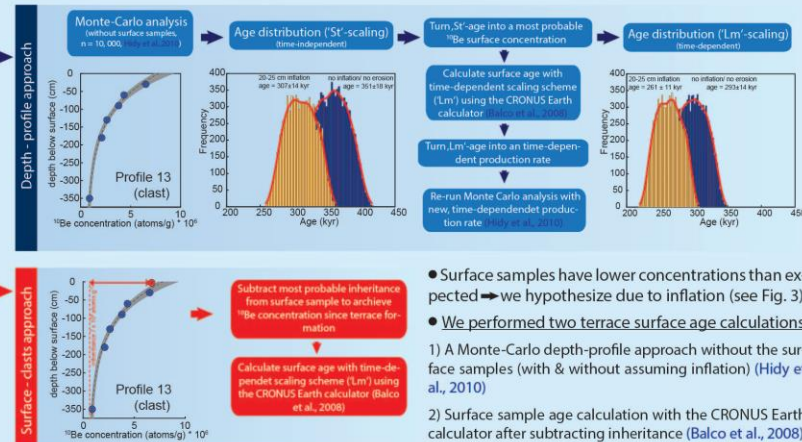
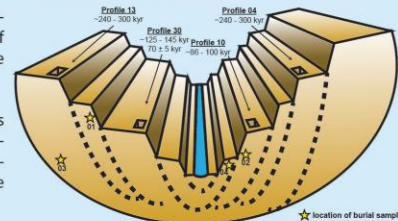
Table 1. Summary of calculated terraces surface abandonment ages

'Lm'- age $\pm 1\sigma$ (kyr)	no erosion/ no inflation	inflation	age based on surface sample
Profile 04	298 $\pm 17$	243 $\pm 14$ (30-40 cm)	
Profile 13	293 $\pm 14$	261 $\pm 12$ (20-25 cm)	242 $\pm 18$
Profile 10	100 $\pm 10$	86 $\pm 8$ (0-10 cm)	98 $\pm 7$
Profile 30a (top)	70 $\pm 5$		
(bottom)	75 $\pm 12$	55 $\pm 11$ (40-45 cm)	
30b (bottom + top)	70 $\pm 75 = 145$	70 $\pm 55 = 125$	

Fig. 5 Simplified model of terrace distribution and location of the pits. A show the resulting range of all different calculation approaches.

- Final ages vary greatly with the amount of inflation and with the approach

- Surface-clast samples support the hypothesis of inflation (no-inflation scenarios give ages that are too old)



## Interpretation & Conclusion

- Surface samples have lower concentrations than expected  $\rightarrow$  we hypothesize due to inflation (see Fig. 3)

- We performed two terrace surface age calculations:

- 1) A Monte-Carlo depth-profile approach without the surface samples (with & without assuming inflation) (Hidy et al., 2010)
- 2) Surface sample age calculation with the CRONUS Earth calculator after subtracting inheritance (Balco et al., 2008)

- Terrace surface ages based on  $^{10}\text{Be}$  depth profile interpretations are up to 50 kyr younger when inflation is taken into account

➔ inflation hypothesis supported by surface  
clast ages and thus inflation should be consid-  
ered when working in areas characterized  
by desert pavements

● Terrace surface ages fall in non-saline and thus wetter climate phases compared to the Lake Titicaca paleoclimate record from [Baker & Fritz \(2015\)](#) (Fig. 6)

- Remnants of further terraces between and above the dated ones additionally indicate the formation of terraces related to the 100-kyr climate cycle (eccentricity)

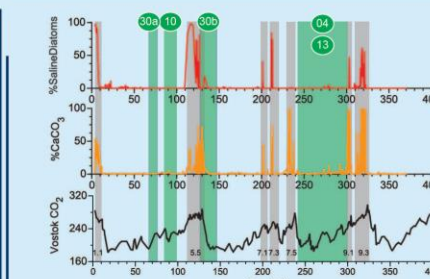


Fig. 6 Terrace surface age-ranges (shaded in green) compared to a paleoclimatic record from Lake Titicaca (Baker & Fritz, 2015). The Lake Titicaca record shows increased salinity during major interglacial stages (shaded in grey). For the location of Lake Titicaca see Fig. 1. This figure is modified from Baker & Fritz (2015).

## References

Robles, Paul A., and Sheldyn C. Fritz. "Nature and causes of Quaternary climate volatility of tropical South America." *Quaternary Science Reviews* 124 (2015): 31-42.

Salen, Gerg et al. "A complete and easily accessible means of calculating surface exposure ages or erosion rates from  $^{10}\text{Be}$  and  $^{26}\text{Al}$  measurements." *Quaternary geochronology* 3.3 (2008): 174-195.

Schiffman, T.J., Robinson, J.A., Syd, S., Phillips, W.M., Sperlich, J.G., Bockheim, J.G., Scherler, D., Sjödin, S., Alvarado, R.H., Kudo, P.W. and Blom, S.A., 2016. Landscape response to late Pleistocene climate change in NW Argentina: Sediment flux modulated by basin geology. *Journal of Quaternary Science*, 31, 103–114.

<sup>2</sup>Desert pavement evolution by Josef J. Janssen. Our work is licensed under CC BY-SA 4.0 via Commons [https://commons.wikimedia.org/wiki/File:Desert\\_pavement\\_evolution.jpg#/media/File:Desert\\_pavement\\_evolution.jpg](https://commons.wikimedia.org/wiki/File:Desert_pavement_evolution.jpg#/media/File:Desert_pavement_evolution.jpg)

### Acknowledgments

### Acknowledgments

in the field. Ulfen Poltepek, Jan Schörmann, Martin-L.

and David Kifer helped with the sample preparation. This work was funded through a DFG Emmy Noether

Polynomial graph to Taylor Schildgens





## **GM Awards and Medals**

### **GM Division Outstanding 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:**

2014: Robert Hilton

2016: Pierre Valla

2017: **Dirk Scherler**



## **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	<b>2017</b>	<b>Ellen Wohl</b>



## GM Awards and Medals

### Medal Lectures

- *Penck lecture by Dirk Scherler*  
Wed, 26 Apr, 12:15–13:15 / Room L3
- *Ralph Alger Bagnold Medal Lecture by Ellen Wohl*  
Thu, 27 Apr, 19:00–20:00 / Room L3
- *Preceded by the GM Division Reception (Sponsored by Wiley – BGS)*  
Thu, 21 Apr, 18:00–19:00 / Room L3



## **GM Awards and Medals**

### **Ralph Alger Bagnold Medal committee**

#### **2017**

Andreas Lang (president)

Niels Hovius

Heather Viles

James Kirchner

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

#### **2018 (proposal)**

Andreas Lang (president)

Ellen Wohl

Niels Hovius

Heather Viles

# **Approved**

*... 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/>

## **Agenda | EGU GM Division meeting 2017**

- General Assembly; some numbers and information
- GM Division Programme, planning and outcome, travel support
- Medals / Awards
- **Elections autumn 2017: EGU president + General Secretary, GM president, ECS representatives**
- EGU Announcements
- Other Announcements

## **GM Science Officers**

**Peter van der Beek** (president)

[gm@egu.eu](mailto: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**

# **Approved**

***Elections for division president this autumn!***

## **Division president elections 2017**

Election of a new division president for divisions with a president who starts her/his second term now and who is outgoing in 2019:

- Elections in autumn 2017 with 2 candidates minimum
- (Self-)nominations until September; approval of candidates by council  
October, elections in November
- The elected person will become incoming division deputy president at the GA 2018 and division president at the GA 2019
- These divisions have an appointed division deputy president for GA 2017 to GA 2018 (who needs to be approved by the division meeting of the GA 2017).

## **GM Early Career Scientist Representative**

- Current ECS representative for GM: **Emma Shuttleworth** is stepping down
- Would prefer to be a team (practice in several other divisions)

**Micha Dietze and Annegret Larsen stepped forward  
and have been approved**

<http://www.gfz-potsdam.de/sektion/geomorphologie/mitarbeiter/profil/michael-dietze/>

<https://applicationspub.unil.ch/interpub/noauth/php/Un/UnPers.php?PerNum=1176505&LanCode=37>

## Agenda | EGU GM Division meeting 2017

- General Assembly; some numbers and information
- GM Division Programme, planning and outcome, travel support
- Medals / Awards
- Elections autumn 2017: EGU president + General Secretary, GM president, ECS representatives
- **EGU Announcements**
- **Other Announcements**

## GA Survey

[www.egu2017.eu/feedback](http://www.egu2017.eu/feedback)

- Distribution:
  - via email to participants and EGU members after GA
  - links on social media & blog
  - [egu2017.eu](http://egu2017.eu) website
  - Flyers/cards in Vienna
- Survey live during General Assembly and until mid June





## 2018 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 Topical Events (other than GA)**

- Galileo Conferences  
*“From process to signal – advancing environmental seismology”,*  
Ohlstadt, Germany, 6-9 June 2017
- EGU Conference Series (under evaluation)
- EGU Training Schools: call this year
- Deadline for applications : 31 July
- See <http://www.egu.eu/meetings/co-sponsored-meetings/> for all information

## Other announcements

- Steepest Descent
- Earth Surface Dynamics
- Events for Early Career Geomorphologists (Sabine Kraushaar)
- Irish Geomorphology Group (Eugene Farrell)
- 9<sup>th</sup> ICG – Delhi November 2017 (Mauro Soldati)

# Steepest Descent

Saturday, April 29<sup>th</sup>,  
University of Vienna

- Susan Conway
- Liran Goren
- Mike Lamb

Register at:

<http://www.brownpapertickets.com/event/2843374>



## Steepest Descent

Saturday, April 29<sup>th</sup>, 2017  
9:00-16:00

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



Kali Gandaki Valley, Nepal

09:00 Coffee and croissants

09:15 **Susan Conway**, University of Nantes  
Sediment transport on Mars and beyond - does terrestrial geomorphology help or hinder our understanding?

10:45 Coffee break and discussion around the posters

11:15 **Liran Goren**, Ben-Gurion University  
Tectonics, climate and fluvial relief:  
forward and inverse problems and solutions

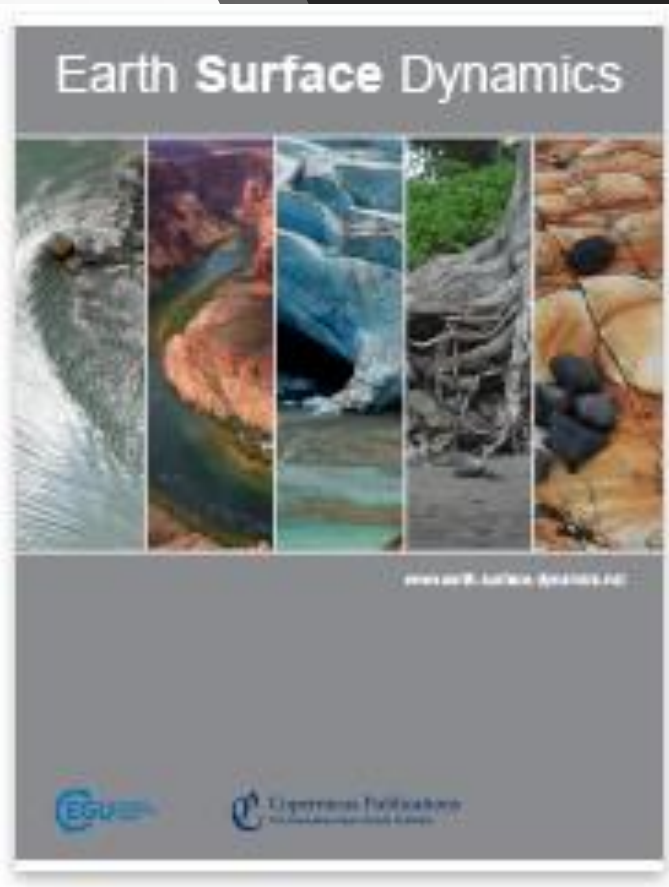
12:45 Lunch break and discussion around the posters

14:00 **Mike Lamb**, California Institute of Technology  
The surprising stability of sediment in steep mountain streams

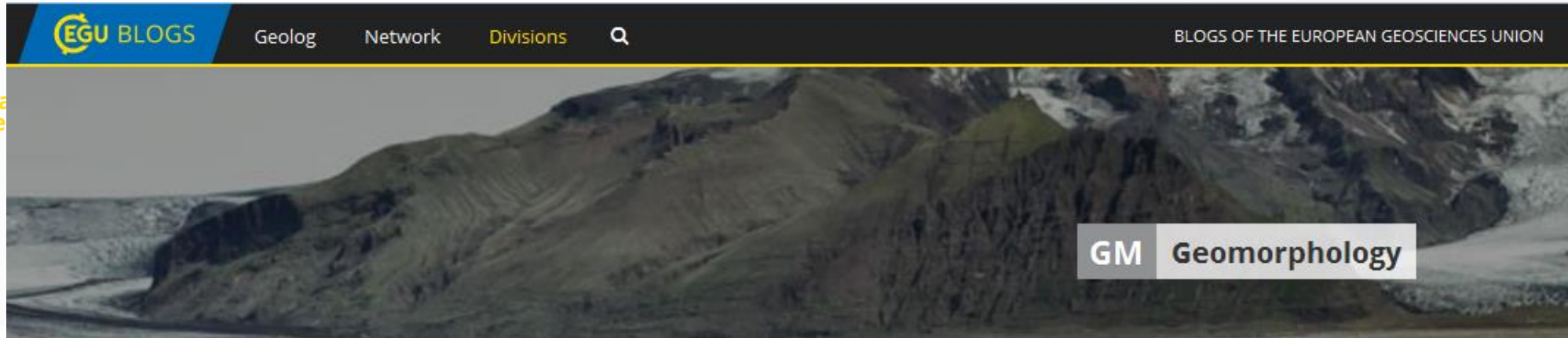
15:30 Closing discussion and pop-ups

Registration and information at [www.brownpapertickets.com/event/2843374](http://www.brownpapertickets.com/event/2843374)  
40€ (25€ for students and postdocs) includes coffee and lunch.  
contact: [steepestdescentmeeting@gmail.com](mailto:steepestdescentmeeting@gmail.com)

# ESurf News



- Our first IF of 2.0 for 2015 – calculated significant increase for 2016
- 50 final ESurf papers published in 2016 – increasing in 2017
- Looking for two new Associate Editors in coastal geomorphology
  - Please contact any of the senior editors if interested
- Now accepting technical development papers
  - Focusing on significant technical, methodological, or model developments in the ESurf subject areas
- Soliciting review papers in key areas (apc waivers available)



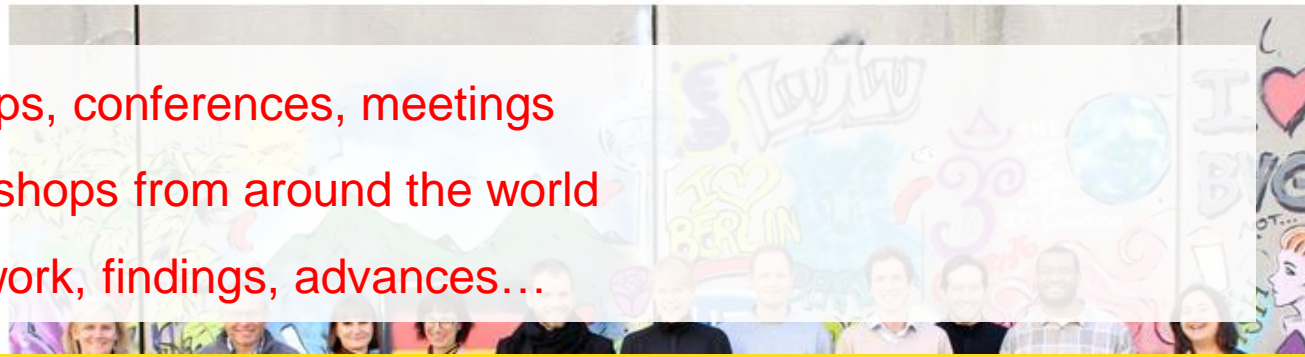
EGU Blogs » Divisions » Geomorphology

## Geomorphology

European Critical Physical Geography – or how power relations can be considered during research set ups

Sabine Kraushaar · April 10, 2017

– written by Christian Schneider (University of Leipzig) and Sabine Kraushaar (University of Vienna) –



**Your contributions  
are welcome!**

### ABOUT

Welcome to the [blog](#) of the [Geomorphology \(GM\) Division](#) of the [European Geosciences Union \(EGU\)](#). This blog serves as a platform for the geomorphology community to share news, events, and activities, as well as updates on the latest research being undertaken in geomorphology. Everybody is invited to contribute to the blog and submit posts to the editors [Jan Blöthe](#) and [Sabine Kraushaar](#).



- Events, workshops, conferences, meetings
- Reports on workshops from around the world
- Interviews, fieldwork, findings, advances...

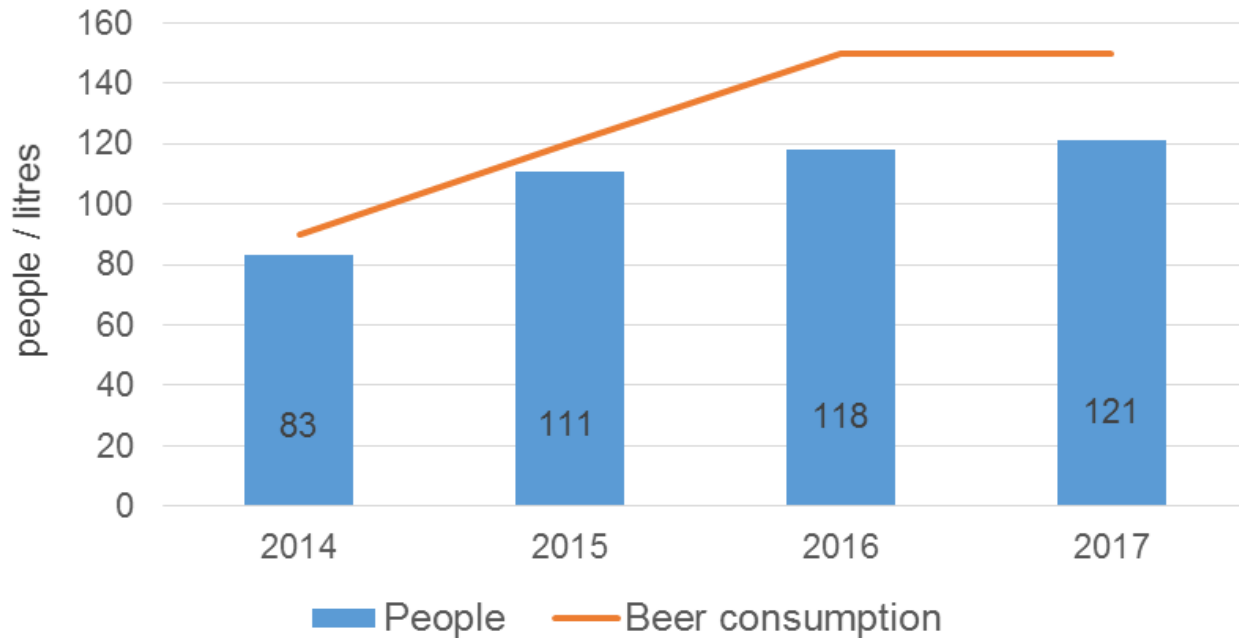


# Social Event for Geomorphologists



Thanks for  
joining in!!

Geomorphologists & beer consumption



Good spirit,  
great fun.



Save the date:  
11.04.2018