

Division Meeting Cryospheric Sciences

Olaf Eisen

EGU Vienna | 12 April 2018



Meetings | Publications | Outreach | www.egu.eu

- Division president elections
- General Assembly meeting's statistics
- CR Programme
- Implementations for present & future GAs
- CR Officers and Secretaries, Medal committee
- Early Career Scientists & Outreach
- Medals and Awards
- Publication: The Cryosphere
- EGU activities
- General discussion and feedback

Division president elections 2019

- past elections autumn 2017: CR president re-elected
 - appointed deputy-president GA 2018 - GA 2020:
Carleen H. Tilm-Reijmer
- next elections in autumn 2019
- newly elected CR president 2019 will become
 - division deputy president at the GA 2020
 - division president at the GA 2021
- put forward **several candidates** to have a reasonable election
(candidatures due in Sept. 2019)

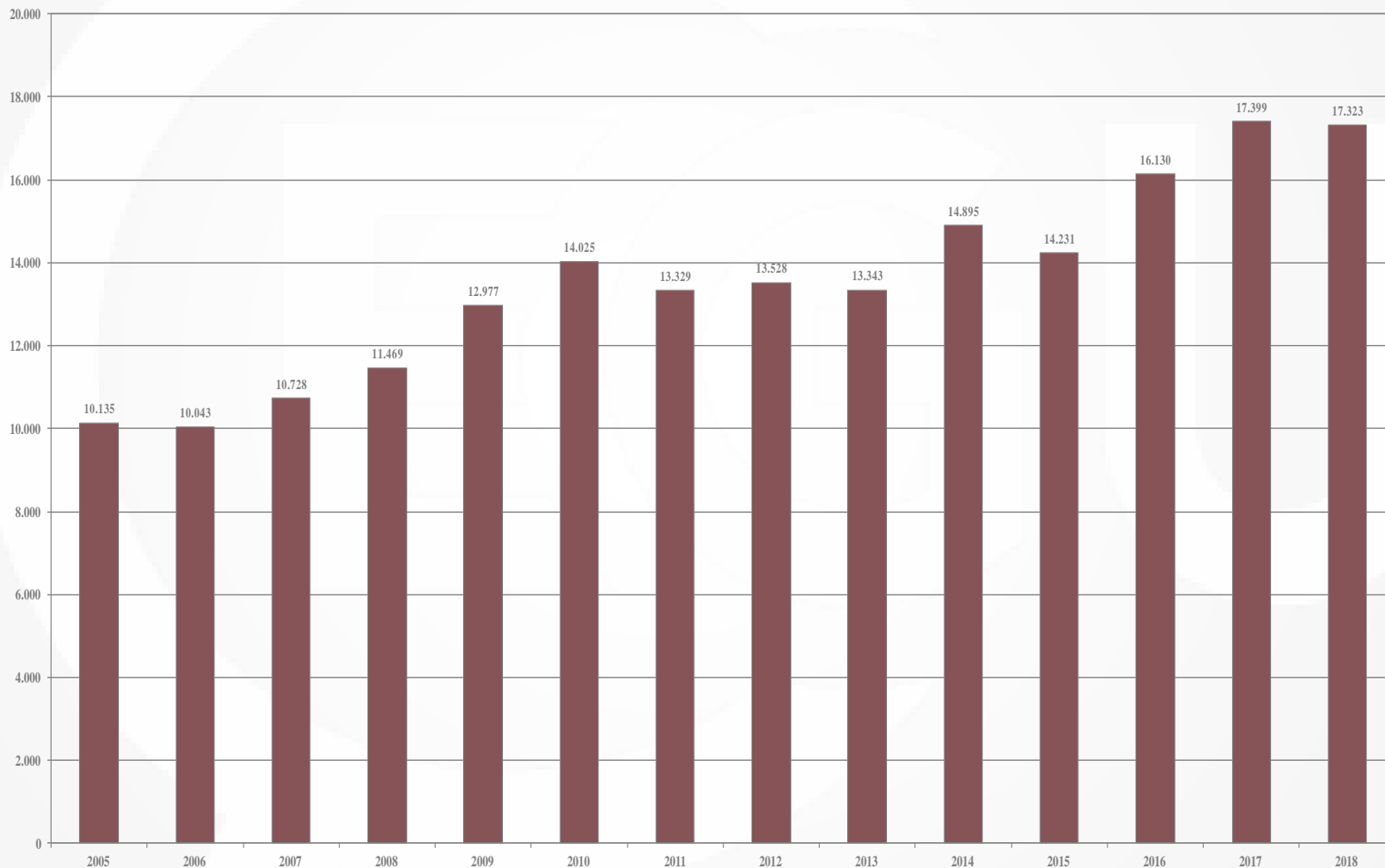
EGU General Assembly 2018 facts

As of 5 April (12:45), the Assembly 2018 provides:

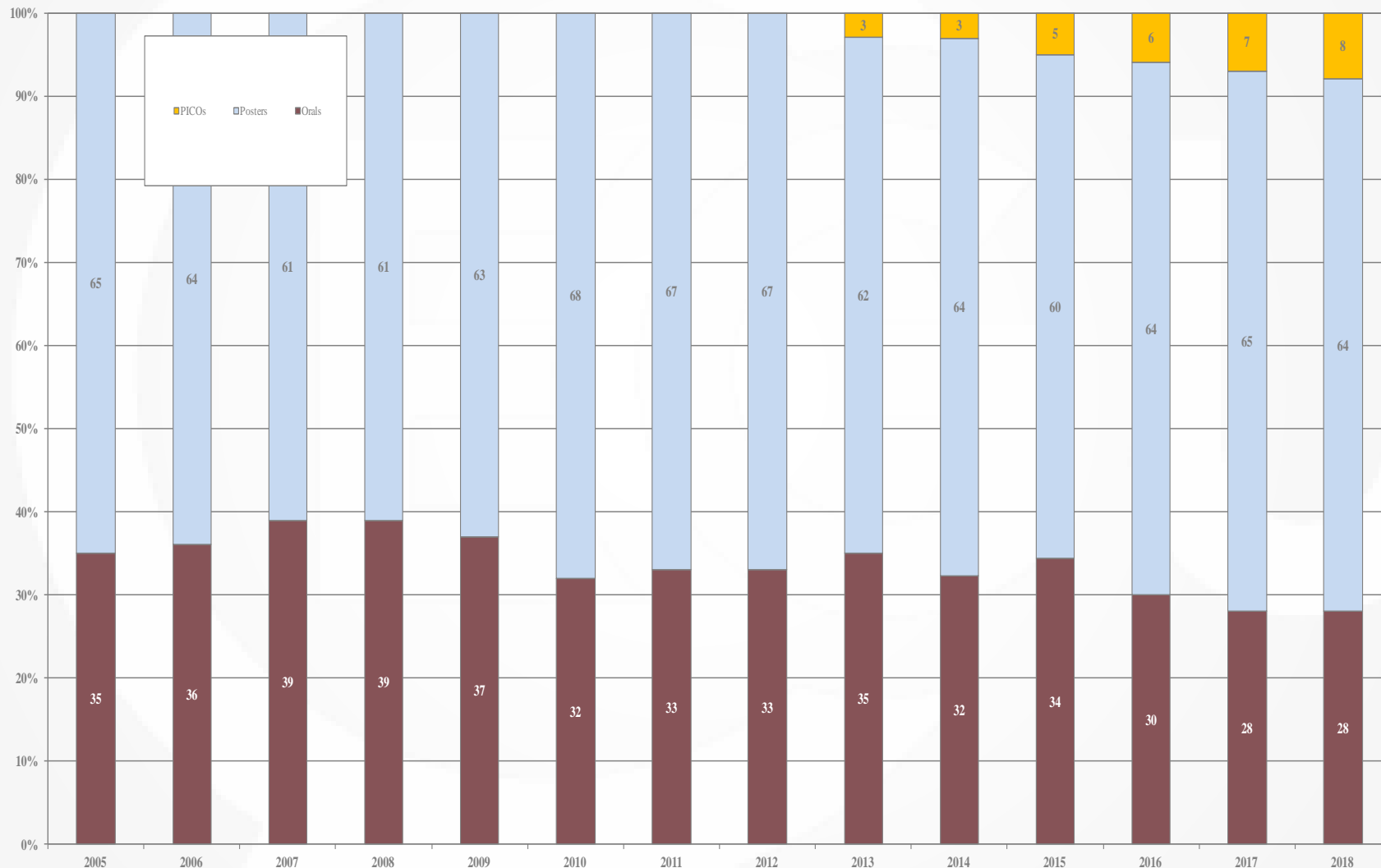
- 17,323 papers in programme | -0.44% (2017)
- 4,776 orals | 11,128 posters | 1,419 PICOs | ratio 28 / 64 / 8
- 12,733 registrations in advance | +12.37% (2017)
- 666 unique scientific sessions | 68 short courses | 294 side events*
- 433 out of 666 scientific sessions are co-organized (65%)
- The 433 co-organized include 20 IE sessions with 459 presentations
- Original sessions: 1,355; 1,028 still active, 327 withdrawn
- Withdrawn: 309 scientific sessions, 7 SC, and 11 side events

*Side events include the programme groups ML, PCN, FAM, TSM, SEV, PC, PPAA

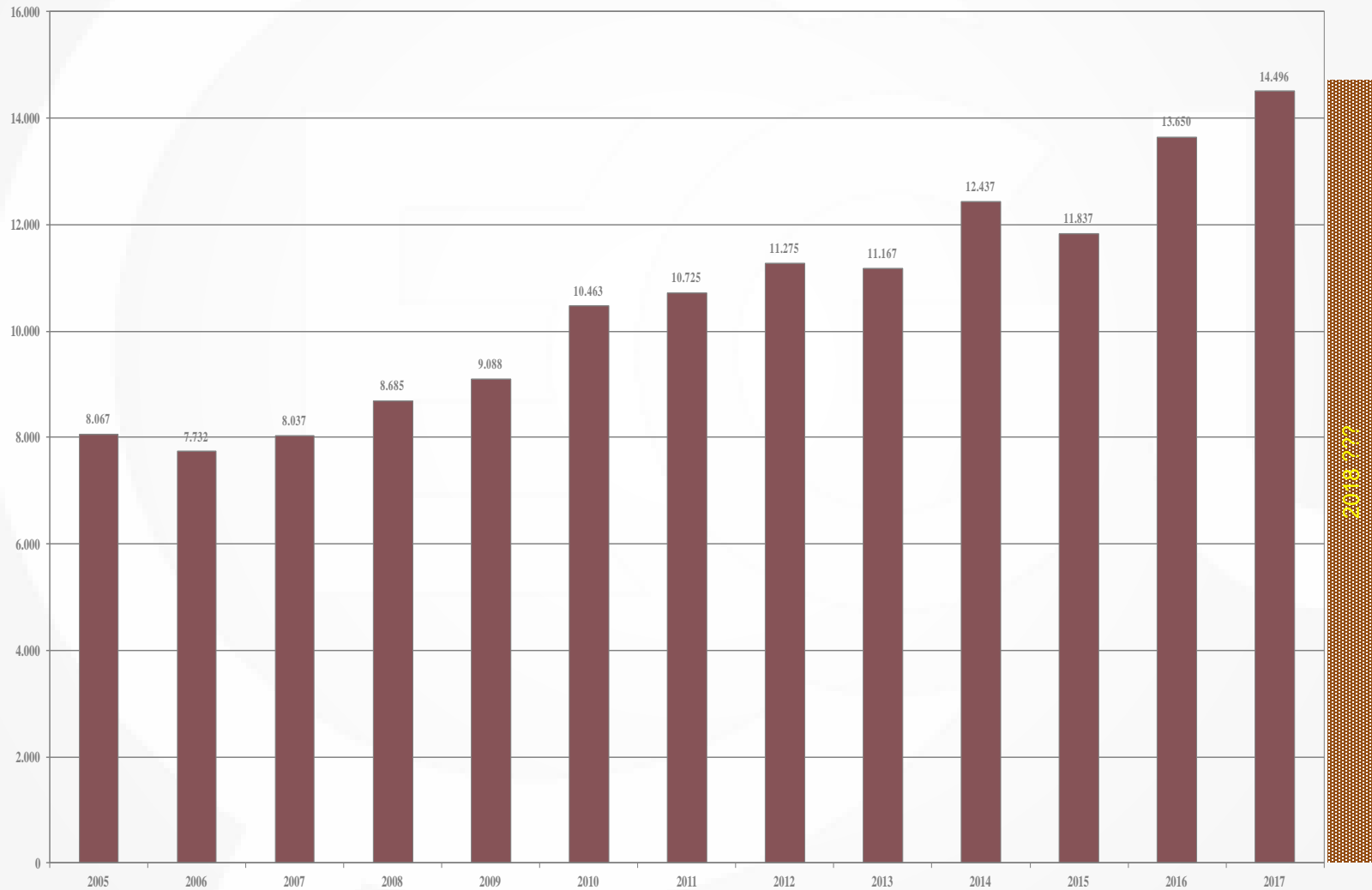
Papers in programme 2005–2018



Presentation ratio 2005–2018



Participants EGU GA 2005–2017



CR Statistics (CR org + CR co-org)

- 2018: 1018 abstracts, 22 oral blocks | 6 PICOs
(CR org: 512 abstracts in 21 sessions: 22 oral blocks)
→ -13% 23 Abstracts/oral block
- 2017: 1179 abstracts, 24 oral blocks | 5 PICOs
(CR org: 521 abstracts in 21 sessions: 24 oral blocks)
→ +9% 22 Abstracts/oral block
- 2016: 975 abstracts and 43 oral blocks | 4 PICOs
(CR org: 478 abstracts in 21 sessions: 21 oral blocks)
→ +55%

Programme General Assembly 2018

Lecture room allocation

derived on 22/23 Jan 2018 by PC Chair/Exec. Sec./Copernicus



To be used for the scheduling via the PCl tool

Room	PAX	MO1	MO2	MO3	MO4	TU1	TU2	TU3	TU4	WE1	WE2	WE3	WE4	TH1	TH2	TH3	TH4	FR1	FR2	FR3	FR4
Green Level – second floor																					
L1	100	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	NH	NH	NH	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS
L2	100	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP
L3	280	CR/OS	CR/OS	CR/OS	CR/OS	ST/PS	ST/PS	ST/PS	ST/PS	CR/OS	CR/OS	CR/OS	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP
L4	140	GIF1	GIF1	GIF1	GIF1	GIF1	GIF1	GIF1	GIF1	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH
L6	261	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH
L7	115	NH	NH	NH	NH	NH	CR/OS	CR/OS	CR/OS	EOS	EOS	EOS	EOS	EOS	EOS	EOS	EOS	EOS	EOS	EOS	EOS
L8	100	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH	NH
M1	104	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP
M2	121	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP
M3	159	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS	ST/PS
M4	159	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS
M5	175	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS	CR/OS
N2	158	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
Yellow Level – ground floor																					
O1	120	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
O2	120	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
O3	120	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM
E1	494	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2	US2
E2	494	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP	ERE/ESS/G/NP
E3	494	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
E4	494	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
F1	494	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
F2	494	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
F3	494	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM
F4	494	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
Brown Level – basement																					
D1	370	SSP/GM	SSP/GM	SSP/GM	SSP/GM	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM
D2	293	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM
D3	370	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM
G1	220	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS
G2	220	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM
G3	220	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM	SSP/GM
K1	220	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP	TS/EMRP
K2	220	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS
L1	150	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS
L2	150	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS	SSS
L3	150	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM	GMPV/G/GD/SM
Sum	9122																				

organization: OS/CR in one program cluster
with 50 oral slots for the week
CR: 22 oral slots → 1.1 rooms/day

AS	84	GMPV/G/GD/SM	93	UMI	6
BG	43	TS/EMRP	55	US	11
CL	60	SSP/GM	58	GDB	5
HS	109	ST/PS	45	GIF1	10
NH	58	CR/OS	50	EOS	12
SSS	49	ERE/ESS/G/NP	69	IE	20

Attention: GOB3 with 1 TB in the evening

General Assembly 2018
Green Level 1 - first floor
Exhibition



L3: 3 time blocks Wd

N1: 12 time blocks: Mo, Tr, Fr

1.85: 7 time block Mo-Wd

Division meeting for Cryospheric Sciences (CR) (co-organized)

Louis Agassiz Medal Lecture by Eric Rignot (co-organized)

CR Division Outstanding ECS Award Lecture by Ricarda Winkelmann (co-organized)

CR1 – The state of the Cryosphere: Past, Present and Future

State of the Cryosphere: Observations

Ice-sheet and climate interactions

Reconstructing paleo ice dynamics

numerical modeling (co-organized)

Glaciers and ice caps under climate change

Atmosphere – Cryosphere interactions

Polar Climate Predictability and Variability

Mountain climates: processes and variability

Into the Anthropocene; Observations and modeling

other climate indicators (co-organized)

Sea level rise: past, present and future

Atmosphere – Cryosphere interactions

and deposition of aerosols, etc.

CR2 – Instrumental observations

Remote sensing of the cryosphere

Glacier Monitoring from In-situ and Satellite

Applied geophysics and in-situ observations

Fluid signatures in the hydrological cycle

rotation monitoring (co-organized)

Close-Range Sensing of Environmental Parameters

Environmental Seismology: Applications

Application of remote sensing to ice cover

The state-of-the-art in ice cover monitoring

CR3 – Snow and ice: properties, processes, hazards

MicroSnow: From quantitative stratigraphy to microstructure-based modelling of snow

Snow, snow cover processes and avalanche formation | PICO session

Snow in ski resorts and snow avalanches: measuring and modelling (co-organized) | PICO

CR1 State of the cryosphere

CR2 Instrumental observations

CR3 Snow and ice

CR4 Permafrost, rock glaciers, debris

CR5 Ice sheets, ice shelves and glaciers

CR6 Sea ice

CR7 Natural hazards

CR8 Open/cross-discipline topics

New rules & actions for GA 2018

- **No-shows:** Alert conveners, presenting author and PG chair if no (co-)author of abstract registered by two weeks prior to GA2018. If an abstract was not presented and not withdrawn, or withdrawn after scheduled presentation, we ask conveners if they received any feedback. If no reason, **Copernicus will withdraw abstracts** from www.egu2018.eu
- **Warning** for (co-)convener orals at session scheduling
- 1 solicited presentation per oral block (and 2 solicited possible to accommodate session merges)

New rules & actions for GA 2018

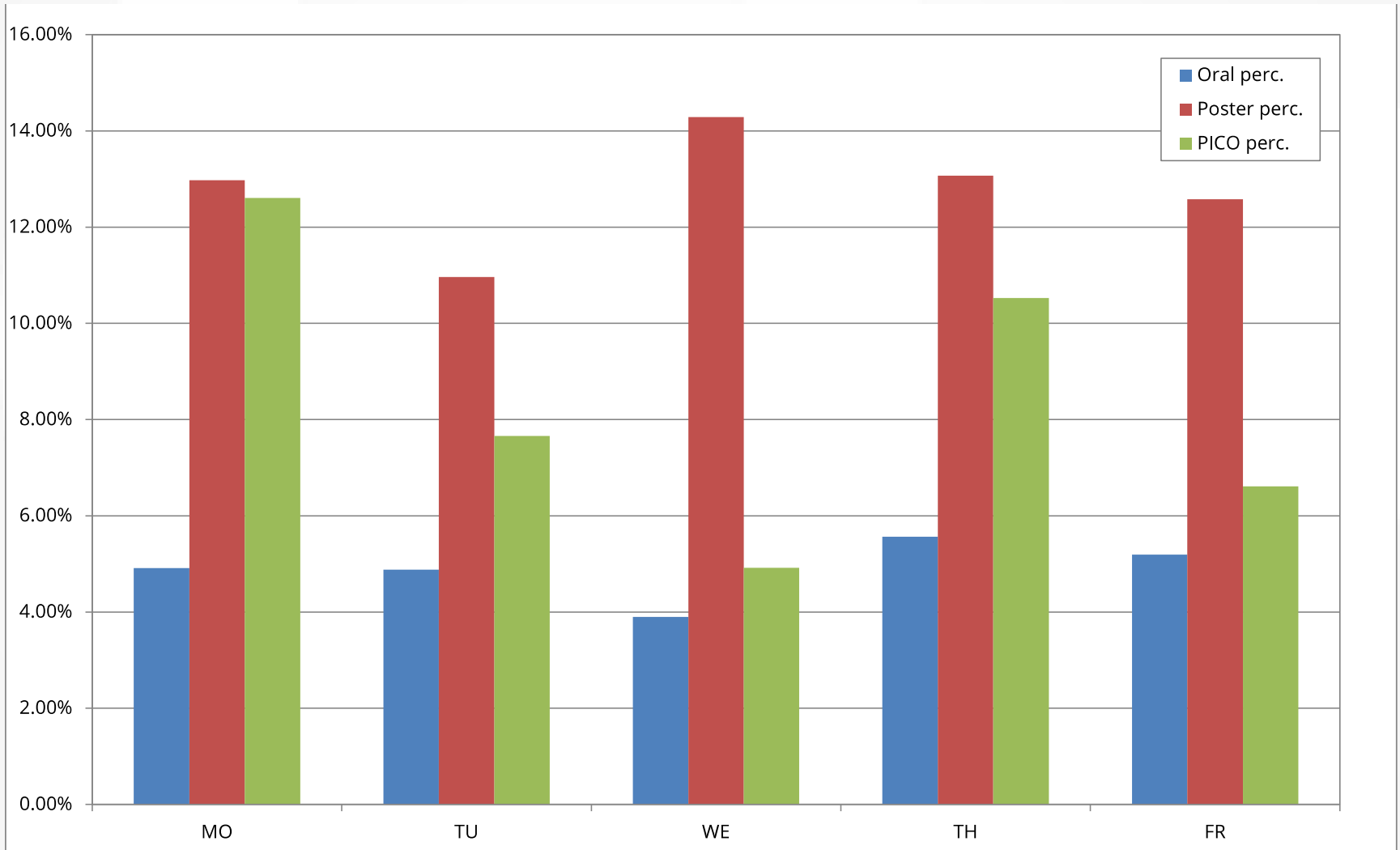
- Measures to reduce environmental impact of the General Assembly (e.g. CO2 emission offset, water bottles)
- Promote trains: SBB discount, planning train Paris-Vienna
- Poet-in-residence
- Cartoonist-in-residence } <https://blogs.egu.eu/geolog/>
- Public lecture, Th 19:00, Natural History Museum (in German)
- OSPP ‘volunteer to judge’ X2.176 ★ [EGU2018-6621](#) | OSPP: [volunteer to judge](#)
Modelling the Wilson Cycle: How to NOT initiate subduction at the passive margin
Stephane Beaussier, Taras Gerya, and Jean-Pierre Burg
- 70 short courses. **New SC co-chair needed** for GA19-GA23
- Mentoring programme matched 153 mentees with 97 mentors (ca. 70 mentees unmatched – **need more mentors!**)

The need for a change

- We may reach maximum poster capacity in ~2 years
- Oral sessions can reach 80% median room fill in ~2 years, meaning 50% of the rooms will be full to overfull
- There is no possibility for new rooms or extra space in the ACV
- EGU has signed a contract with the ACV until 2024
- 60% - 65% (2013-2018) of abstracts are posters, which are presented in 1.5 hours only

→ We need to act

No-show statistics GA 2017



Future format General Assembly

Current model

TB1	Orals, PICO
Break	
TB2	Orals, PICO
Lunch	
TB3	Orals, PICO
Break	
TB4	Orals, PICO
Break	
TB5	Posters, drinks
TB6	Medal lect, TM

- 4800 orals
- 1800 PICO
- 12500 posters (full day)
- Poster capacity full ~2020
- Room fill issues 2020/2021

Alternative model

TB1	Orals, PICO, Posters
Break	
TB2	Orals, PICO, Posters
Lunch	
TB3	Orals, PICO, Posters
Break	
TB4	Orals, PICO, Posters
TB5	Exhibition, drinks
TB6	Medal lectures, TM

- 6000-6400 orals
- 1800 PICO
- 12500 posters (full day)
- Poster capacity full by ~2023
- Double poster capacity to 25000 by half-day showing time
- No room fill issues next 10 years

New rules & actions for GA 2019

- No solicited presentations by conveners: “Authors (first and co-authors) should not have a solicited presentation in a session they (co-)convene. (Co)-conveners should not be presenting author, and are discouraged from being co-author, on oral presentations in a session they convene.”
- 1-abstract rule: “Authors are allowed as first author to submit either one regular abstract plus one abstract solicited by a convener, or two solicited abstracts.”
- Number of conveners on a session: At session submission minimum 2 – maximum 5
- Number of convenerships as a recommendation: 1 as main convener, maximum 3 (co-)convenerships total

EGU GA 2019 timeline

01 Jun – 21 Jun 18	Call-for-skeleton. Only sub-programme structure (headers), no session roll-over! Conveners: ECS & gender balance
25 Jun – 13 Sep 18	Public call-for-sessions Includes GDB and US
17 Sep – 12 Oct 18	Session programme finalization
11 Oct 18	PC Meeting Ismanning
15 Oct 18 – 10 Jan 19	Abstract submission

President/PC Chair:	Olaf Eisen	(2017-2021)
Deputy President:	Carleen Tijm-Rijmer	(2017-)
Medal Committee:	Michiel van der Broeke	(2015-)
OSP Award Coord.:	Nanna B. Karlsson	(2017-)
ECS Rep.:	Emma Smith	(2017-)
Publications:	Thomas Mölg	(2017-)
Outreach:	Sophie Berger	(2017-)

Secretaries

Sea Ice:	Michel Tsamados	(2016-)
Permafrost:	Christophe Grenier	(2015-)
Glaciers:	Matthias Huss	(2014-2018)
Ice Sheets:	Guðfinna Th. Aðalgeirsdóttir	(2014-2018)
Ice Caps:	Nick Barrand	(2014-2018)
Ice Shelves:	Adrian Jenkins	(2014-2018)
Snow:	Marie Dumont	(2017-)

New Secretaries: proposals invited Feb. 2018

Glaciers:	Daniel Farinotti
Ice Sheets:	Heiko Gölzler
Ice Caps:	Harry Zekollari
Ice Shelves:	Reinhard Drews

Louis Agassiz Medal Committee

Michiel van der Broeke, Chair (2015)

Thierry Fichfet (2016)

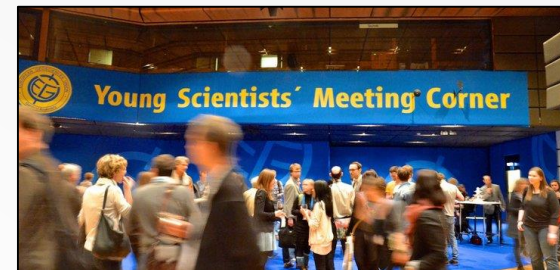
Frank Pattyn (2018)

Jürg Schweizer (non-medallist, 2018-)

ex-officio member without voting rights:

Olaf Eisen

Early Career Scientist at EGU



EGU level

*“An Early Career Scientist (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.”*

2018: EGU: 8,909 (52%) CR: 527 (52%)



CR Cryospheric Sciences

We need a new ECS Rep for 2019-2021.
Contact cr@egu.eu if interested!

Social events:

- Pre-Icebreaker Meet-up (Sunday)
- Cryo and APECS Night Out (Wednesday)

Short Courses:

- Help! I'm Presenting at a Scientific Conference (Monday)
- EGU Cryosphere and APECS Polar Career Panel (Tuesday)
- Communicating Geoscience to the Media (Tuesday)
- How to use the Copernicus Climate Data Store and its associated toolbox (Tuesday)

Town Hall Meeting:

- Scientific Integrity in a Politically Challenged World (Tuesday)

EGU Medals and Awards

- *Union medals*
 - Alfred Wegener Medal (senior late-career scientists)
- *Union awards*
 - Arne Richter Award for Outstanding EC Scientists
- *Union travel awards -> EGU Roland Schlich travel awards*
- *Division medals and awards*
 - Louis Agassiz Medal (‘mid-term’ scientist)
 - Outstanding Young Scientist Award
 - Outstanding Student Poster Award (OSP_oP)
 - Outstanding Student PICO Award (OSP_iP)

Deadline for proposing candidates for 2018 is **15 June 2018**.
Detailed guidelines www.egu.eu/awards-medals

Louis Agassiz Medal Lecture by Frank Pattyn

Mon, 9 April, 19:00-20:00 / Room K2

The 2018 Louis Agassiz Medal is awarded to Frank Pattyn for his unsurpassed contributions to the understanding of large-scale ice-sheet dynamics and his leadership in the internationally coordinated efforts to improve ice-sheet models.



CR Division Outstanding Early Career Scientists Award → Arne Richter Award

Wed, 25 April, 11:30-12:00 / Room L3



The 2018 Arne Richter Award for Outstanding Early Career Scientists is awarded to Mathieu Morlighem for his outstanding research in the field of ice-sheet modelling and his contribution to the dissemination of modelling methods and knowledge in the cryospheric community.

Outstanding Student Poster Award Flavien Beaud



The 2017 Outstanding Student Poster and PICO (OSPP) Awards is awarded to Flavien Beaud for the poster entitled:

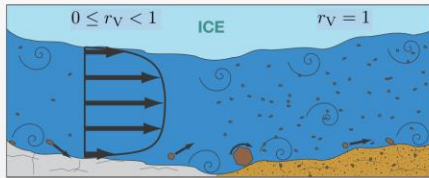
Numerical modelling of esker formation in semi-circular subglacial channels

(Beaud, F.; Flowers, G. E.; Venditti, J. G.)

Framework for sediment transport in R-channels

Assumption:

Water flows through an R-channel fed by a moulin upstream. The bed of the R-channel is a mixed bedrock / alluvial channel and can be fully alluviated.



Mixed bedrock / alluvial channel

Numerical model:

Shear stress on the bed (Pa): $\tau_b \propto f_{bed} u_w^2$

Non-dimensional shear stress: $\tau^* = \frac{\tau_b}{(\rho_s - \rho_w)gD}$ If $\tau^* / \tau_c^* \geq 1$, motion initiated.

Transport capacity per unit width (m²/s): $q_{tc} \propto D_{sed}^{3/2} (\tau^* - \tau_c^*)^{3/2}$

Volumetric rate sediment transport (m³/s): $q_t = q_{tc} r_v W_{ch}$

Sediment volume per unit length (m³/m): $V_s = (V_b + (1 - \lambda)\eta_a) W_{ch}$

Channel closure by sediment deposition (m²/s): $v_s = \frac{\partial V_s}{\partial t} \frac{1}{1 - \lambda}$

System of equations to solve (water conservation, evolution of channel cross-section and sediment conservation):

$$-\gamma S_{ch} \frac{\partial p_{ch}}{\partial t} = \frac{\partial Q_{ch}}{\partial x} + \frac{\Xi - \Pi}{L} \left(\frac{1}{\rho_i} - \frac{1}{\rho_w} \right) - v_{cc} - \dot{b}_{ch}$$

$$\frac{\partial S_{ch}}{\partial t} = v_{mo} - v_{cc} - v_s \quad \frac{\partial V_s}{\partial t} = \frac{\partial q_t}{\partial x} + \frac{\partial q_{ls}}{\partial x}$$

Study summary

Motivation:

- Subglacial water flow deposits, here eskers, can help to understand present subglacial drainage systems

Problem:

- Little is known about sediment transport by subglacial water flow
- A better understanding of these processes would help bridge the gap between eskers and present-day subglacial drainage systems

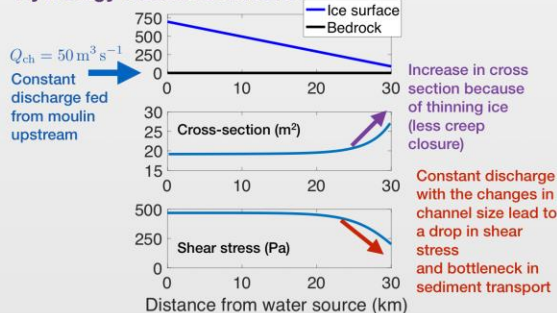
Goal:

- Develop a numerical framework of sediment transport by water flow in R-channels and explore conditions conducive or detrimental to sediment deposition

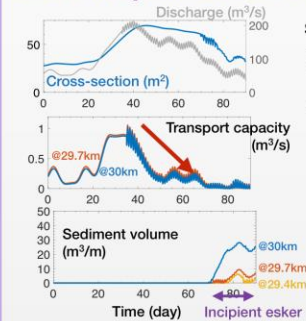
Preliminary findings:

- Bottleneck in sediment transport is a natural feature of R-channels
- An incipient esker will form if the sediment supply exceeds the transport capacity at the terminus
- An incipient esker can form at the end of a melt-season
- The ice geometry has a significant influence on the shape of the incipient esker

Hydrology without sediment



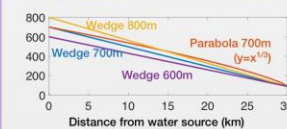
Sediment dynamics close to the terminus



- Simulation set-up:**
- ▶ Synthetic melt season
 - ▶ Constant sediment input upstream ($D_{sed} = 0.17m$)
 - ▶ Wedge-shape glacier

The drop in transport capacity leads to sediment accumulation close to the terminus and the deposition of an incipient esker

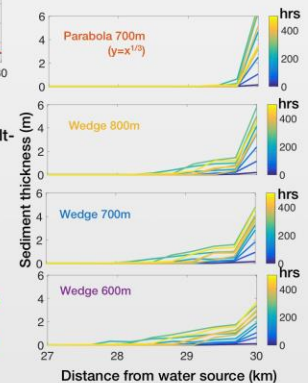
Ice geometry and incipient esker deposition



Evolution of incipient esker over time

- Simulation set-up:**
- ▶ Same as above with synthetic melt-season
 - ▶ Simulation run with 4 ice geometries

- Results:**
- ▶ Incipient esker forms for every simulation
 - ▶ Steeper surface slopes lead to thicker sediment accumulation at 30 km
 - ▶ Shallower surface slopes lead to deposition occurring further up-glacier





Outstanding Student PICO Award

Louis Quéno

The 2017 Outstanding Student Poster and PICO (OSPP) Awards is awarded to Louis Quéno for the poster entitled:

Forecasting and modelling ice layer formation on the snowpack due to freezing precipitation in the Pyrenees

(Quéno, L.; Vionnet, V.; Cabot, F.; Vrécourt, D.; Dombrowski-Etchevers, I.)

Forecasting and modelling ice layer formation on the snowpack due to freezing precipitation in the Pyrenees

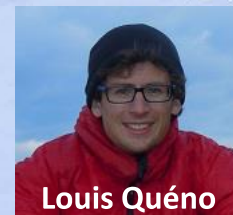
L. Quéno¹, V. Vionnet¹, F. Cabot², D. Vrécourt², I. Dombrowski-Etchevers³

¹ Météo-France – CNRS, Grenoble, France

² Météo-France, Tarbes, France

³ Météo-France – CNRS, Toulouse, France

EGU, Vienna, 24 April 2017



CNRM UMR 3589



Renaming of CR Louis Agassiz medal

Based on historical evaluations EGU Council voted for a change of name:

- desirable: name after female
- implementation for 2020

Suggestions:

- Almut Iken (*1933)

Opinions?

Other suggestions? J. Glen, S. Johnsen

Suggestions invited until end of April 2018.

Decision: EGU Council.

Opinion: CR to join CRYO connect?

CRYO connect --- ask an expert

Cryo Connect is a global platform facilitating information exchange between cryospheric scientists and those interested in the cryospheric sciences, including journalist, policy makers, and script writers. Information seekers can select from a large group of science providers, while cryosphere experts can target the media directly with their latest findings.

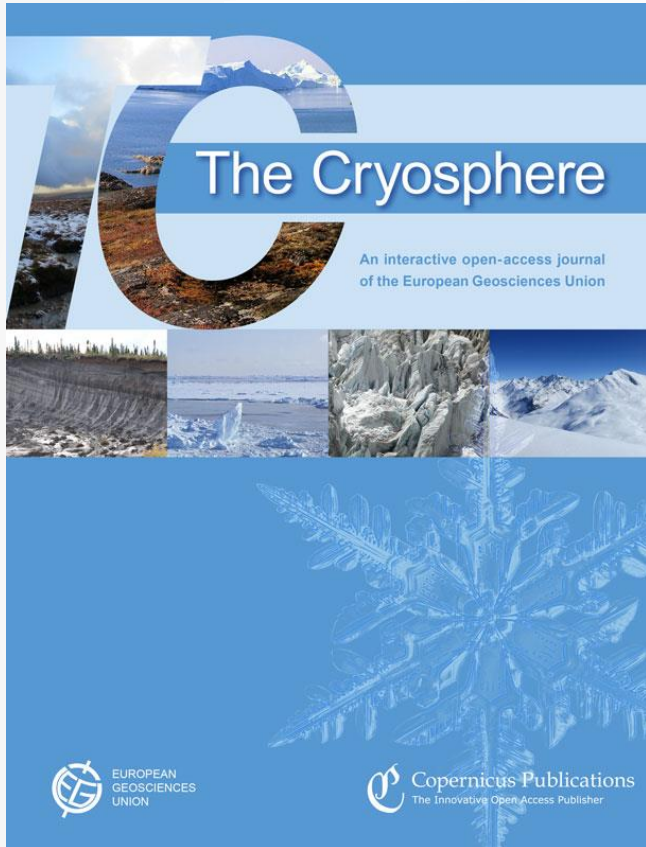
Cryo Connect provides two-way connectivity:

- Science pull: Experts sign up and become a member of the Cryo Connect community by listing their areas of expertise and competences such as language skills. Information seekers interested in a specific topic are sent a shortlist of matching experts for them to choose from.
- Science push: Scientists email Cryo Connect with their latest findings, which are forwarded to an undisclosed distribution list of information seekers. Scientists can also reach information seekers on Twitter using the @CryoConnect handle.

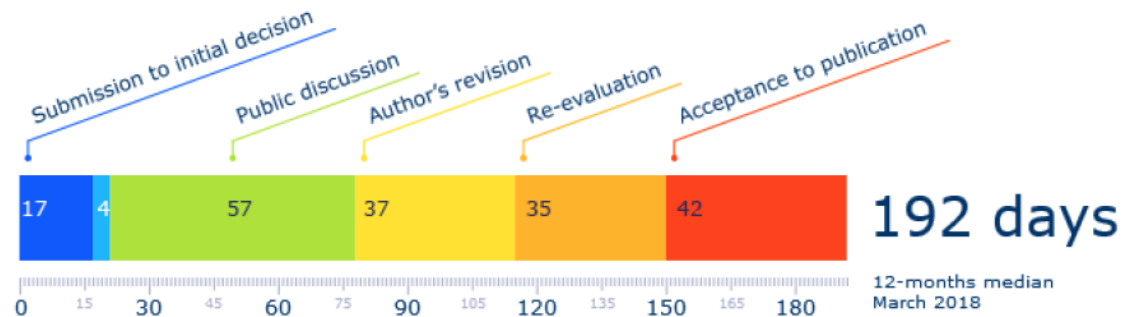
Like Cryolist, Cryo Connect is operated by volunteers. The organization is not for profit, but welcomes donations and other types of financial support to provide continuity to its service, and to improve website and database functionality. In the start-up phase, Google provides a convenient yet temporary framework for Cryo Connect.

Cryo Connect requests online referral of EGU members to its service in exchange for EGU priority access to the Cryo Connect database. EGU will be listed as a partner on CryoConnect.net.

No clear approval by
DBM, insufficient info



- Open access - IF 4.8 (4.9, 5.5)
- The leading journal in its field
- 2017: TCD: 286, TC: 237
- Co-Editors-In-Chief:
 - Florent Dominé – snow
 - Christian Haas – sea ice
 - Christian Hauck – permafrost
 - Thomas Mölg – glaciers
 - Olaf Eisen – ice sheets



- GA & Conferences → **Galileo Conferences**
- Co-sponsored meetings
 - 1 call per year: 1 June 2018: Training Schools
- Publications
- Awards
- Outreach
- Newsletter
- Early Career Scientists

- *imagerieo photo contest: **vote closes today***

- Address **well-focused cutting-edge topics** at the frontier of geosciences research
- 3-5 days meeting for discussion and debate for about **100 scientists**
- EGU provides comprehensive **organisational support** allowing organizing committees to focus on the scientific aspects
- Support for Early Career Scientists (up to 5000€)
- EGU is partly sponsoring the event. Financial **loss or benefit go to EGU**
- 2 stage application process on-line
- 2017 & 2018: two Galileo conferences each
- Next call end of 2018 for 2020!

Experience with EU funding programmes?

Help us tell policymakers about what EU funded research areas geoscientists feel should be focused on, improved or continued.

Online: www.egu.eu/H2020survey
Or at the EGU Booth (Brown Level, -2)

EXPERIENCE WITH
EU FUNDING PROGRAMMES?
WE NEED YOUR FEEDBACK!



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HEAD TO THE **EGU BOOTH (BROWN LEVEL, -2)**
TO COMPLETE THE SURVEY NOW!

www.egu.eu/H2020survey



<https://eur-geo-logists.eu/>
info.eg@eurogeologists.eu



www.egu.eu | info@egu.eu



ANNOUNCEMENT

Joint EGU-AGU statement of principles for a code of ethics for the geosciences

[Home](#) / [News & press](#) / [EGU news](#) / [Joint EGU-AGU statement of principles for a code of ethics for the geosciences](#)



4 April 2018

The geosciences advance our understanding of the Earth and contribute to a universal quest for knowledge about our world. The culture of science varies internationally, yet integrity must remain inviolate. The geosciences community affirms the international principle that the free, open, and responsible practice of science is fundamental to scientific advancement and human and environmental well-being. We also affirm a desire to foster and support a safe and professional environment in order to learn, conduct research, and communicate science with integrity, respect, fairness, trustworthiness, and transparency, and without censorship, coercion, or harassment. This includes all professional interactions within the scientific community and with members of the public and policy makers. Failure to uphold these principles harms our profession, our scientific credibility, and the well-being of individuals and the broader community. It is the responsibility of all geoscientists to ensure the rigor and integrity of our scientific practice and to work to prevent actions contrary to the spirit of the above principles. To that end, we encourage all geoscientists to adopt the following code of conduct for rigour, respect, and responsibility in their professional activities.

Contact

Philippe Courtial
EGU Executive Secretary
✉ executive-secretary@egu.eu

Share this



EGU 2018 issues, plans for EGU 2019

- Suggestions for improving the programme ?
- PICOs (Spot 3 too noisy)? Lecture rooms?
- Please propose sessions and conveners for 2019!
- Time of the Medal lecture: 7-8 pm?
- Future growth? Suggested alternative model ...?
(Poster sessions exclusively: 5:30-7:00 pm?)

EGU GA 2019: 7-12 April

**Please
Give Us
Feedback!**

www.egu2016.eu/feedback

Feedback comments

- 70 participants
- CryoConnect: uncertain how it would work. Ensure that no crazy people sign up as experts? For outreach might be way forward.
- medal: Johnsn, Glen, no strong opinion on Iken, no objection

Program

- Beer at 17:15 to not take away 15' distribution time from posters & reduce waiting time
- Session mergers: provide global view to conveners, # of abstracts to conveners after abstract submission phase
- Enable more streaming (even paid) to reduce travel time (overseas) & CO2
- 6 talks per TB enough, 8 not possible
- Alternative program structure: equal opinions
- Longer Picos possible?
- Interleafing sessions in breaks, e.g. one division 8:30-10:30 & 11-12, another 8:30-10 & 10:30-12