

# The Flux Line

News of the Geomagnetism, Paleomagnetism, and  
Electromagnetism Section of AGU

June 2018

Report on the 2017 AGU Fall Meeting



AGU hosted another busy, jam-packed annual meeting this past December at a new and exciting venue: New Orleans. We were able to enjoy all the AGU scientific events under one (albeit long) roof, partake of great Cajun food, and view the Mighty Mississippi. The GPE section again ran well-attended meetings, social events, topical sessions, and special lectures. We had a total of 10 oral and eight poster sessions, plus the Bullard Lecture and one eLightning session, spread out over the weeklong meeting. This involved 223 individual presentations (81 oral and 142 poster presentations) with nearly 1,000 associated authors! Although this Fall Meeting was as large as recent ones in San Francisco, topping 22,000 abstracts submitted, GPE was down in numbers, with a 27% drop in submissions. We hope this is not a trend and that we will have our more usual number of nearly 300 abstracts for the Washington, D. C., meeting.

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## Highlights of the 2017 Fall Meeting

**Dr. Alan Chave**, senior scientist, Woods Hole Oceanographic Institution, is the newest GPE member to be inducted as a Fellow of AGU. This occurred during the annual Honors Award Ceremony on Wednesday evening during the meeting.



## Bullard Lecture



Prof. Ken Kodama, Lehigh University, delivered an outstanding lecture titled “Determining the Accuracy of Paleomagnetic Remanence and High-Resolution Chronostratigraphy for Sedimentary Rocks Using Rock Magnetism.” Shown is Ken receiving accolades after his talk, with GPE president Laurie Brown.

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## WILLIAM GILBERT AWARD



The William Gilbert Award, presented annually by the section to a member “in recognition of outstanding and unselfish work in magnetism of Earth materials and of the Earth and planets, including the whole range of research activities in which Geomagnetism, Paleomagnetism, and Electromagnetism members are engaged,” was presented to Dr. John Booker, University of Washington. John was recognized for his extensive work in elucidating lithospheric and mantle structure using electromagnetic and magnetotelluric methods.

GPE awarded four **Outstanding Student Paper Awards** (OSPA) for presentations at the Fall Meeting. Congratulations to our winners for last year, and thanks to all the members who judged talks and poster presentations.



**Shelby Jones-Cervantes** (University of California, San Diego), “Data recovery of North American directional archaeomagnetic records for the development of a robust reference curve for the Four Corners region of the American Southwest”

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**Claire Nichols** (University of Cambridge),  
“Magnetic and microstructural  
characterisation of FeNi: Insight into the  
formation and impact history of the IAB  
parent body”



**Clara Maurel** (Massachusetts Institute of  
Technology), “Paleomagnetic evidence for  
partial differentiation of the silicate-  
bearing IIE iron meteorite parent body”

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**Tatiana Savranskaia** (Institut de Physique du Globe de Paris), “ $^{10}\text{Be}$  and relative paleointensity signals across the last geomagnetic reversal”

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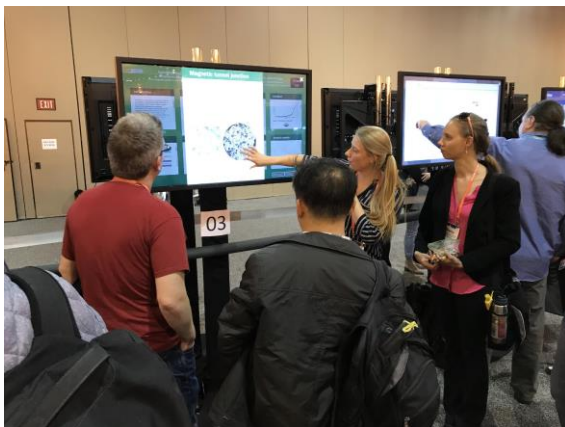
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## **eLightning Presentations—Talks and Posters**

AGU initiated a new presentation method last year with the eLightning presentations. Sections were invited to offer a session that involved short talks (in front of a computer screen) followed by a more traditional poster session, but again using a computer screen. Three brave GPE members volunteered, giving 3-minute introductions to their work and then presentations on the computer screens. The method appeared to be quite successful—look for additional eLightning sessions for 2018.



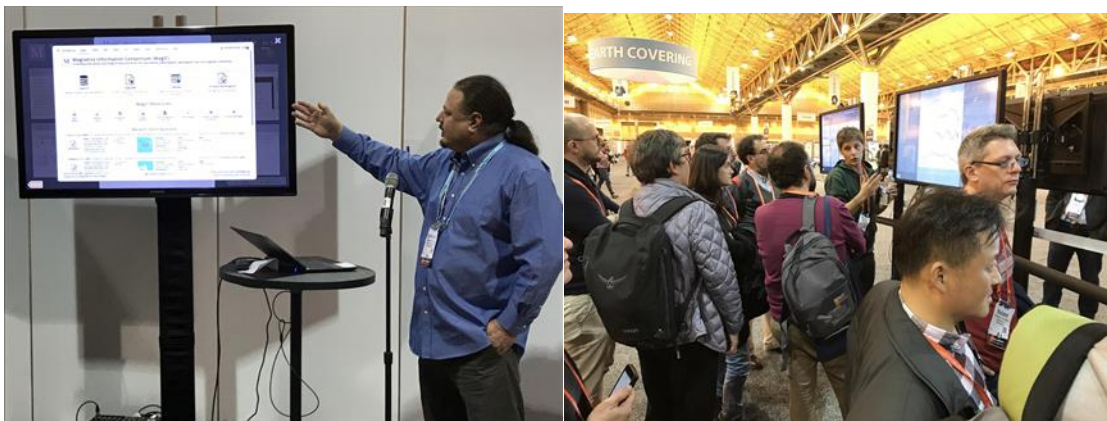
Annamariëka Béguin (Utrecht University) with (above) her eLightning talk and (below) her poster-style presentation.



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(Left) Nick Jarboe (Scripps Institution of Oceanography) in his 3-minute talk and (right) Patrick Arneitz (Zentralanstalt für Meteorologie und Geodynamik) and his audience during his eLightning poster presentation.

## STUDENT MIXER

The 2017 AGU Fall Meeting GPE Student Mixer was a great success, with 36 students in attendance! The big change was that the mixer was held in a bowling alley with a light buffet, as opposed to in a bar. This was a great change and was enjoyed by all. Among all the socializing and bowling, it was really wonderful to see a mix of familiar faces and new students interacting. Conversations about life, research, and the meeting were only muted by the cheering of successful GPE bowlers.

These moments go a long way in fostering a sense of community among the next generation of GPE scientists and building lasting friendships. Per usual, there were magnetic-themed door prizes that harnessed our inner child. Stay tuned for details about the 2018 Fall Meeting GPE Student Mixer.

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## Scenes from the Student Mixer





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### **GPE Executive Committee**

The GPE Executive Committee currently includes the following people:

Laurie Brown, President

Catherine Johnson, President-elect

Andy Jackson, Past President

France Lagroix, Secretary

Katerina Petronotis, GPE Webmaster

Shelby Jones-Cervantes, Student Representative

Lennart de Groot, Early-Career Representative

Ken Kodama, Flux Line Editor

The GPE Executive Committee is an eight-person committee providing discussion, feedback, and suggestions concerning GPE activities, procedures, and governance. Membership includes the elected GPE officers (president, president-elect, past president, and secretary) as well as several appointed positions, with terms of office running for 2 years. The section website manager and the Flux Line editor are two such positions. Two other positions are the student representative and the early-career representative, as outlined below:

**Student Rep:** This position should be a graduate student pursuing research in a subject covered by GPE and expecting to be a student for the next 2 years. Traditionally, the student rep, with help from the rest of the Executive Committee, organizes the GPE student mixer at the Fall Meeting.

**Early-Career Rep:** This position is for a GPE member who is in the first 10 years of employment in a GPE field including academia, industry, or government agencies.

### **GPE Community Access**

The GPE website is <http://geopaleoelectromagnetism.agu.org/>.

We would welcome updates to our entries on Laboratories, Software, Education, and other information.

We also welcome photos or other fun and interesting information on our Facebook page: <https://www.facebook.com/AGUGeoPaleoElectroMagnetism>.

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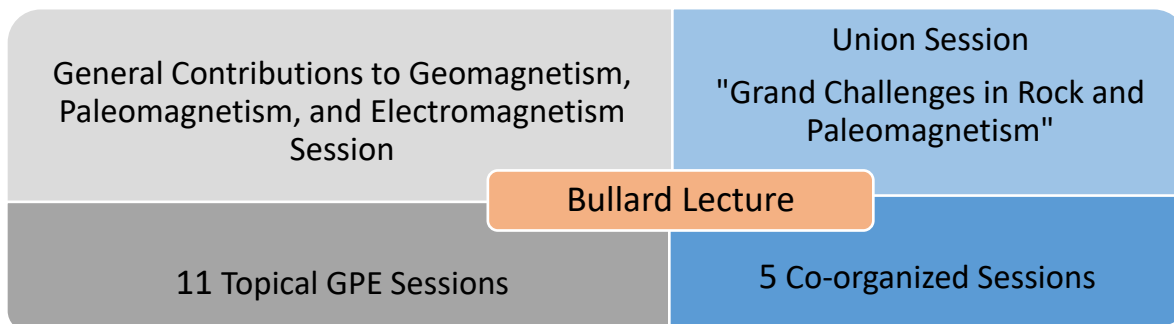
The Geomagnetism, Paleomagnetism, and Electromagnetism section proposes a great slate of sessions for the Fall Meeting.

Thank you to all GPE members and collaborators who submitted session proposals.

Students, early-career researchers, senior researchers, come share your science and ideas. Make sure that the next groundbreaking, bridge-building, moving forward results are at the 2018 Fall Meeting to kick off the next 100 years of AGU.

It is your turn to contribute by submitting an abstract!

*The submission portal is now open.*



**Deadline: 1 August at 2359 EDT**

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## Sessions

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| <ol style="list-style-type: none"><li>1. The Polar Geomagnetic Field in the Northern and Southern Hemispheres</li><li>2. Refining Our Understanding of Earth and Planetary Magnetic Processes with Accurate Paleointensity Estimates</li><li>3. Reconstructing the Paleomagnetic Field: From Data to Model</li><li>4. Chronostratigraphy Using Magnetic Methods</li><li>5. Biogeomagnetism, Biogenic Magnetic Minerals, and the Environment</li><li>6. Environmental Processes Revealed Through Soil and Sediment Magnetism</li><li>7. Marine Magnetism, 50 Years After Plate Tectonics</li><li>8. Motion Between Hot Spots and True Polar Wander</li><li>9. Planetary Magnetism and Core Processes</li><li>10. Frontiers in electromagnetic methods</li><li>11. Understanding Active Earth Systems</li></ol> | <ol style="list-style-type: none"><li>12. Connecting the Dynamics of Earth's Deep Interior and the Evolution of the Magnetic Field</li><li>13. Current Understanding of Large Igneous Provinces, Hot Spot Tracks, and Mantle Plumes</li><li>14. Geodetic and Magnetic Investigations of Crust and Mantle of Earth and Other Planetary Bodies</li><li>15. Frontiers of Uncertainty Quantification in Geoscientific Inversion</li><li>16. Pre-Earthquake Processes: A Multidisciplinary Approach to Earthquake Prediction Studies</li></ol> |
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AGU ELECTIONS

# VOTE

AGU biannual elections for Board, Council, and section officers will take place late in the summer. All AGU members will receive a ballot to vote for AGU Board member, student representative, and early-career representative on the AGU Council *and* for officers for the GPE section.

## GPE Officers

Continuing: Catherine Johnson, President  
Laurie Brown, Past-president

## FOR ELECTION

President

Gary Egbert, Oregon State University  
France Lagroix, Institut de Physique du Globe de Paris

Secretary

Ioan Lascu, Smithsonian Institution  
Ron Shaar, Hebrew University

Polls Open

27 August through 25 September

You must be a current member of AGU to vote; renew membership by 1 August if it has lapsed.

More information will appear in *Eos*.