

Minutes of the GPAP Business Meeting
Tuesday 22 October 2019
APS Division of Plasma Physics Meeting
Fort Lauderdale, Florida

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Meeting Chair: Toshiki Tajima, outgoing Chair (in collaboration with Mike Brown, incoming chair)

I. GPAP Annual Election

The Elections are presently ongoing with the following candidates

Vice-Chair: (3 year Chair cycle, 11/2019-10/2022)

Matt Kunz (Princeton)

Executive Committee Members-At-Large: (11/2019-10/2022)

Damiano Caprioli (University of Chicago)

Li-Jen Chen (NASA)

Yi-Hsin Liu (Dartmouth)

The ballots will close on November 1st 2019. The Results of the Elections will be communicated in the GPAP Newsletters.

II. Fellowship

We congratulated our new GPAP sponsored APS Fellow:

- Howes, Gregory Gershon [2019] of University of Iowa
Citation: For fundamental contributions to understanding of turbulence in weakly collisional, magnetized plasmas, especially the nature of energy dissipation mechanisms.
Nominated by: Topical Group in Plasma Astrophysics

III. Finances

Ivo Furno, Secretary-Treasurer of the GPAP, provided a report on the Topical Group Finances, presented by Chair Toshi Tajima:

Available Funds as of 9/18/2019	\$43,157.55
2019 Dues	\$1,435.00
2015 Investment Income	\$711.11
Net Revenue	\$2,146.11

IV. Announcements

A. Collaborative activities

1. GPAP Summer School in Plasma Astrophysics (2019)

We held a successful GPAP/NSF-sponsored plasma astrophysics summer school at Swarthmore College the week of June 17, 2019. Instructors included Prof. Matt Kunz

(Princeton), Dr. Jason TenBerge (Princeton University), Prof. Kris Klein (Arizona), Prof. Carolyn Kuranz (Michigan), and Prof. Mike Brown (Swarthmore). There were 30 applications from all over the country including Yale, Santa Barbara, Dartmouth, Princeton, and Harvard. The school was advertised at over 40 astronomy programs. 19 students attended the summer school; including 8 women, 7 undergraduates, and 10 first or second-year graduate students. Students stayed in Swarthmore College dorms and travel was subsidized. Students were required to become members of GPAP. The format included morning lectures, followed by small group work sessions in the afternoons.

2. GPAP student scholarships to attend APS

Mike Brown initiated this program in 2018 to encourage the student participation in APS. At the 2018 meeting, we approved GPAP student travel grants for APS-DPP meetings. Each grant will be for \$500 to defray travel and accommodation costs. Preference will be given to astrophysics graduate students who would normally not attend DPP. Students should send a one-page letter to Mike Brown (doc@swarthmore.edu) describing their work, and why they would like to present their research at the APS-DPP meeting. Information is in the GPAP newsletter on the GPAP website.

3. IPELS (Prof. M. Yamada)

The International Workshop on the Interrelationship between Plasma Experiments in the Laboratory and in Space (IPELS) held their 13th meeting in Tokyo in September 2019. IPELS has held meetings every other year since 1991 (in Albach, Austria). GPAP is a supporting partner of IPELS. The next IPELS meeting will be in Russia in coordination with the Russian Academy of Science (2021).

4. NSF presentation (Dr. V. Lukin)

Dr. Lukin gave a presentation on NSF programs in support of plasma astrophysics. One such program is on multi-messenger astrophysics (i.e. study of objects detectable by gravity waves, energetic particles, or neutrinos in addition to electromagnetic radiation). Proposals could support the interpretation of observational data using experiment or theory. Deadline this year is November 18th.

5. Collaboration with high energy cosmic ray community EUSO (Extreme Universe Space Station)

Prof. T. Ebisuzaki and Dr. Y. Kato reported this collaboration in which plasma acceleration makes an important contribution.

6. LLNL National Ignition Facility Laboratory Astrophysics engaged

Dr. Bruce Remington introduces laboratory astrophysics relevant NIF frontier science program allocated 10% of NIF shots.

V. GPAP Recruitment

There were discussions about ways and venues to recruit new members of GPAP. This would increase our visibility and our dues income, enabling us to do more to promote plasma astrophysics. Suggestions included making membership free for students (at least for the first year). The GPAP would pay their \$10 dues for them.

VI. Membership Comments and Concerns

- Perhaps we should create an Outreach Committee as part of the GPAP Governance to coordinate outreach activities. This could certainly help with recruiting more members.
- As a possible benefit to the GPAP community, perhaps we can set up a server for preprints of papers, or at least a central listing of relevant papers by GPAP members that links to external sources for those papers.
- Could we possibly have a monthly webinar series, where once per month we have a talk over the web.
- We could sponsor a Town Hall on Developments in Plasma Astrophysics to raise the profile of the work our community is doing.
- For the Astro 2020 Decadal Survey, the committee is already working together. Perhaps GPAP should organize to gather white papers to submit to the Decadal committee to present a united voice from plasma astrophysics.
- Tri Alpha Energy (Dr. Gota)

For profit company interested in public-private partnership (PPP) utilizing the privately funded plasma devices such as TAE's FRC plasma called "Norman". This year (2019), the DoE started to fund PPP in about 20 national lab projects on PPP through INFUSE. Some of them include such GPAP activities as solar magnetic field measurement technique of the Hanle effect utilized in the FRC magnetic fluctuation measurements.