

Commission H Report on Montreal GASS Commission Business Meetings

1. Result of Election of Vice Chair

There were four candidates: Andrei Demekhov, Patrick Galopeau, Jyrki Manninen and Anatoly Streltsov.

Received mail-in votes (2 points - first choice, 1 point - second choice):

Belgium, Canada, Ireland, Japan, New Zealand, *Singapore (associate -> excluded)*,
USA, CHINA (SRS), Czechia, Hungary, India, Russia, Finland

Onsite votes: USA (changed ballot), France, Sweden, Poland, UK

Results:

Andrei Demekhov 8

Patrick Galopeau 14

Jyrki Manninen 17

Anatoly Streltsov 9

The elected vice chair is **Jyrki Manninen**.

2. Result of Election of Early Career Representatives

There were four candidates: Claudia Martinez-Calderon, Frantisek Nemeč, Masafumi Shoji and Xin Tao

Received mail-in votes (2 points - first choice, 1 point - second choice):

Belgium, Canada, Ireland, Japan, New Zealand, *Singapore (associate -> excluded)*,
USA, CHINA (SRS), Czechia, Hungary, India, Russia, Finland

Onsite votes: Poland, UK, Sweden

Results:

Claudia Martinez-Calderon 10

Frantisek Nemeč 19

Masafumi Shoji 14

Xin Tao 2

The elected ECR2 is **Frantisek Nemeč**.

3. Appointment of Associate Editor for Radio Science Bulletin

The Commission H Associate Editor of RSB for the next triennium (2017-2020) is **Jyrki Manninen**.

4. List and status of Working Groups

- Working Group of Commissions H and J: Computer Simulations in Space Plasmas. Co-chairs for Commission H: Y. Omura (Japan) and B. Lembège (France). Status: **active**.
- Working Group of URSI and IAGA: VLF/ELF remote Sensing of the Ionosphere and Magnetosphere (VERSIM), Co-Chair for URSI Commissions H and G: M. Clilverd (UK), Co-chair for IAGA: J. Bortnik (USA). Status: **active**
- Working Group of Commissions E, G, and H: Seismo-Electromagnetics (Lithosphere-Atmosphere-Ionosphere Coupling). Co-chair for Commission H: H. Rothkaehl (Poland). Status: **active**
- Working Group of Commissions EHG on Solar Power Satellites. Co-chair for Commission H: K. Hashimoto (Japan). Status: **active**

- Working Group of Commissions G and H on Active experiments in Space Plasmas. Co-Chair for Commission H: M. Kosch (South Africa). Status: *active*
- Working Group of Commissions E, F, G, H and J on RFI Mitigation and Characterization. Co-chair for Commission H: H. Rothkaehl (Poland). Status: *active*
- A new working group of Commissions EFGHJ on **Space Weather** has been initiated. Temporary Co-Chair for Commission H: János Lichtenberger (Hungary).

5. Updates to Terms of Reference of Commission

The Term of Reference of Commission H has been changed to:

The goals of the Commission are:

To study waves in plasmas in the broadest sense, and in particular:

- the generation, propagation, and detection of waves in plasmas,
- wave-wave and wave-particle interactions,
- plasma turbulence and chaos,
- spacecraft-plasma interaction,
- instabilities, heating, and diagnosis of laboratory plasmas;

To encourage the application of these studies, particularly in the areas of solar/planetary plasma interactions, space weather, and an increased exploitation of space as a research laboratory.

6. Meetings proposed to be supported in the coming triennium so far:

8th VERSIM workshop, Apatity, Russia, 19-23 March 2018

9th VERSIM workshop, Oracle, Arizona, USA, late Summer 2020

7. Report and comments on the scientific program of the Commission for the current GASS

Commission H organized 10 scientific sessions with 187 submitted abstracts

- participated on 6 scientific sessions organized by commissions G and E with 97 submitted abstracts
- received 11 papers for the Student Paper Competition (no award)
- received 21 Young Scientist Award applications (12 awards)

One general lecture was given by Steven A. Cummer (Commission H): "Transient luminous events and terrestrial gamma ray flashes"

Commission H tutorial lecture was given by Craig Rodger: "Drivers, detection, and wider significance of precipitation from the radiation belts"

The sessions went smoothly and were well attended.

8. Other business

There was no other business

9. Appendix 1: Proposed sessions and conveners for AT-RASC

Commission H-led sessions:

- H.1 Chaos and turbulence in plasma
- H.2 Plasma instabilities and wave propagation
- H.3 Spacecraft-plasma interactions
- H.4 Solar/planetary plasma interactions
- H.5 Wave-wave and wave-particle interactions
- H.6 Waves in laboratory plasmas
- H.7 Other
- H.8 Special sessions
 - S-H1– Unexpected findings and advances in geospace research revealed from multi-point observations - Six years of Van Allen Probes measurements
Organizers: Craig Kletzing, Wen Li, Drew Turner, Sasha Ukhorskiy, and Maria Usanova
 - S-H2 – Unexpected findings and advances in geospace research revealed from multi-point observations - Initial results from ARASE (ERG) satellite
Organizers: Y. Kasahara, J. Manninen, M. Shoji
 - S-HG – Radio science for space weather science and operations
Organizers: M. Messerotti, V. Pierrard

Sessions led by other commissions:

- S-GH – “Meteors, collisional EMPs, and other highly-transient space plasma events”
Organizers: Asta Pellinen-Wannberg, John Mathews, and Margaret Campbell-Brown
- S-GEH – Seismo-electromagnetics (lithosphere-atmosphere-ionosphere coupling)
Organizers: S. Pulinets,
- S-JACEFG – “Applications for pattern recognition methodologies”
Organizers: R. Bradley, V. Chandrasekar, F. Gronwald, P. Doherty
“Inter-commission space weather”
Organizers: I. Stanislawska, P. Doherty, A. Coster (G); R. Bradley (J); W. Radasky (E); L. Baldini (F); J. Lichtenberger (H)

General Lecture:

Richard Horne (University of Sheffield, UK): Space weather and its effects on satellites

10. Appendix 2: Proposed sessions for the next GASS

- Wave-Particle Interactions and Their Effects on Planetary Radiation Belts
- Remote Sensing and Modeling of the Earth's Plasmasphere and Plasmapause
- Drivers, Detection, and Ionospheric Impacts of Precipitation from the Radiation Belts
- Natural boundary layers in terrestrial and planetary environments: Macro/micro-scale kinetic processes
- Radio Space Weather

11. Appendix 3: Names, affiliation, and full contact information for the new Chair, Vice Chair, Early Career Representatives, RSB Associate Editor and Technical Advisory Committee

Chair: János Lichtenberger (Hungary), Eötvös University, lityi@sas.elte.hu

Vice-Chair: Jyrki Manninen (Finland), Oulu University, Jyrki.Manninen@sgo.fi

ECR-1: Wen Li (USA), Boston University, wenli77@bu.edu

ECR-2: Frantisek Nemeč (Czech Republic), Charles University, frantisek.nemec@gmail.com

Commission H Advisory Committee:

(1) Past chairs

Robert Benson <robert.f.benson@nasa.gov>

François Lefeuvre <francois.lefeuvre@cnrs-orleans.fr>

Gordon James <james@phys.ucalgary.ca>

Umran Inan <UINAN@ku.edu.tr>

Richard Horne <r.horne@bas.ac.uk>
Yoshiharu Omura <omura@rsh.kyoto-u.ac.jp>
Ondrej Santolik <os@ufa.cas.cz>, after the end of the GA

(2) Vice chair and ECR candidates

Morris Cohen <morris.cohen@ece.gatech.edu>
Andrei Demekhov <andrei@appl.sci-nnov.ru>
Patrick Galopeau <patrick.galopeau@latmos.ipsl.fr>
Anatoly Streltsov <streltsa@erau.edu>
Maria Usanova <Maria.Usanova@lasp.colorado.edu>
Claudia Martinez <claudia@stpp.gp.tohoku.ac.jp>
Masafumi Shoji <m.shoji@stelab.nagoya-u.ac.jp>
Xin Tao <xtao@ustc.edu.cn>

(3) Comm H Session conveners & tutorial and general lecturers

Steven Cummer <cummer@duke.edu>
Craig J. Rodger <craig.rodger@otago.ac.nz>
Anders M. Jorgensen <anders@nmt.edu>
Viviane Pierrard <Viviane.Pierrard@aeronomie.be>
Balazs Heilig <heilig.balazs@mfgi.hu>
Craig Kletzing <craig-kletzing@uiowa.edu>
David Shklyar <david@iki.rssi.ru>
Mark A. Clilverd <macl@bas.ac.uk>
Mauro Messerotti <messerotti@oats.inaf.it>
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Robert Moore <moore@ece.ufl.edu>
Hanna Rothkaehl <hrot@cbk.waw.pl>
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