INTERNATIONAL UNION OF RADIO SCIENCE
UNION RADIO-SCIENTIFIQUE INTERNATIONALE
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Commission GASS 2026 Report

Commission B

Commission B held three onsite meetings during the URSI GASS 2026 in Krakow (Poland). They were chaired by Henrik Wallén (Comm B Chair 2023-2026) and assisted by Ludger Klinkenbusch (Comm B Vice-Chair 2023-2026) and Satheesh Bojja Venkatakrishnan (Comm B ECR since 2023).

CCA-I	Monday, 17 Aug 2026	22 participants
CCA-II	Wednesday, 19 Aug 2026	21 participants
CCA-III	Friday, 21 Aug 2026	19 participants

1. Elections of Commission Officers

Three candidates were running for the position of Commission B Vice Chair (2026–2029) and two candidates were running for the position of Commission B ECR (2026–2029). The electronic voting was concluded on Monday afternoon

Comm B Vice Chair

- **Branislav M. Notaros (USA)** (elected)
- Mariana Dalarsson (Sweden)
- Hsi-Tseng Chou (China SRS)

Comm B ECR

- **Mario Phaneuf (Canada)** (elected)
- Debi Dutta (India)

On the meeting on Tuesday the Council confirmed the election of Branislav Notaros and Mario Phaneuf as incoming Vice Chair and ECR, respectively.

2. Review of Terms of Reference

The Commission B terms of reference were discussed in CCA-I and CCA-II and unanimously changed to:

The interests of Commission B are electromagnetic fields and waves, encompassing theory, analysis, computation, modeling, simulation, design, experiments, validation, and applications. Areas of emphasis are:

- *Time-domain and frequency-domain phenomena;*
- *Scattering and diffraction;*
- *Fields and waves in materials;*
- *Guided waves and components;*
- *Antennas, radiation, and propagation;*
- *Inverse scattering and imaging.*

The Commission fosters the creation, development, and refinement of analytical, numerical, simulation, and measurement techniques to understand these phenomena. It encourages innovation and seeks to apply interdisciplinary concepts and methods.

3. Changes in Working Groups

The working groups were briefly discussed in CCA-III. There are no internal Commission B working groups and no new ones were proposed.

No changes were proposed for the joint working groups

EB **Chaos and Complexity in EM** (with Ari Sihvola (Finland) from Comm B),

EBCFJ **Spectrum Management** (with Satheesh Bojja Venkatakrishnan (USA) from Comm B),

while the joint working group on **5G/6G** with John Volakis and Ludger Klinkenbusch as leading Comm B representatives will not be continued.

4. Commission B Technical Advisory Committee (B-TAC)

Starting after the GASS, the former B-Technical Advisory Board (B-TAB) will be replaced a new B-TAC.

In CCA-1 meeting the audience unanimously approved that a newly elected Comm B board (Chair, VC, and ECRs) decides on its own and appoints a relatively small group for the next 3 years, considering regional and other aspects.

5. Preparation of Future Meetings: Flagship Meetings and EMTS

The upcoming URSI flagship meetings, AT-RASC 23–28 May 2027 in Gran Canaria, AP-RASC 20-25 August 2028 in Toyama (Japan), and GASS 11–18 August 2029 in Singapore were presented and discussed in CCA-III.

The next URSI Commission B International Symposium on Electromagnetic Theory (EMTS) will be held in 2028. Four proposals were submitted and presented at the EMTS 2025 in Bologna (Italy):

Bengaluru, India, 19–23 June 2028

Thessaloniki, Greece, 22–26 May 2028

Budapest, Hungary, 22–26 May 2028

Guildford (London), UK, 12–16 June 2028

After the EMTS 2025 four separate online Q&A sessions were held where each proposer answered questions to all official Commission B members. Finally, the result of the electronic voting performed through the central URSI system was for Thessaloniki, Greece.

As in the past, Commission B plans to support the Young-Scientists-Program of the EMTS 2028 with 9,000€ from the commission budget.

6. Comments on the programme at the GASS 2026

During the CCA-3 meeting members of Commission B mentioned and discussed the following items:

- In contrast to the well-visited technical sessions parts of the various tutorials have been attended by few participants but performed in large lecture halls. Perhaps a corresponding post-conference survey could reveal the reasons and help to improve the situation.

- To avoid confusion, sessions which belong together and are organized without a break in between should appear in the conference app as one session, if possible.

- To improve the attractivity and networking opportunities for young scientists, all of them should be invited to attend (for a small amount, if appropriate/ necessary) a young scientist party where the YS awardees are honored.

7. Proposed Sessions and Conveners for AT-RASC 2027

The following very preliminary list of session topics was presented at the New Coordinating Committee meeting on Saturday, 22 Aug 2026. The list is based on a reordering of the GASS 2026 sessions and serves as the starting point for further refinement. Many sessions will likely have the same conveners as in Krakow, but since no names were confirmed during the GASS 2026 the previous convener names are not included below. It is expected that there will also be proposals for new special and joint sessions.

Fundamentals and Methods

Electromagnetic theory
Scattering and diffraction
Rays and Beams in EM
Propagation and scattering: advances, trends and new applications
Scattering of waves by particles: new applications from radio waves to optics
Novel mathematical methods in electromagnetics
Mathematical modelling of EM problems
On the development of effective models for electromagnetic applications

Antennas

Antenna theory, design, and measurement
Antennas, propagation, and RF systems for vehicular and automotive communication

Computational electromagnetics

Advanced algorithms in computational electromagnetics
Quantum techniques for electromagnetics

Inverse Scattering

Inverse scattering and imaging
Electromagnetic methods for direct and inverse scattering involving stratified media
Electromagnetics in various sensing applications

Machine Learning

Machine Learning and Optimization Techniques in Electromagnetics: new trends and novel applications

Materials and surfaces

Wearable antennas and metasurfaces

Materials in electromagnetics

Metamaterials and metasurfaces to control and tailor wave propagation

Reconfigurable Intelligent Surfaces (RIS) and their Applications

Other topics

Open Session

Commission B led joint sessions

BE: Quantum Electromagnetics

BA: Recent advances in measurement techniques for spatially distributed electromagnetic fields