Commission Report on GASS Commission Business Meetings

Commission B

prepared by Ari Sihvola (Chairperson 2014–2017)

Commission B held three Business Meetings during the Beijing GASS. There were around 50 participants present on the Monday meeting, 34 on Wednesday, and 20 on Friday. (Unfortunately no attendance list was circulated on Monday, and hence the number 50 is an estimate.)

Giuliano Manara (Chair of Commission B) chaired the meetings, assisted by Ari Sihvola (Vice Chair of Commission B).

1. Results of Election of Vice Chair

Two candidates were running for the position of Vice Chair for Commission B for 2014–2017. In the vote during the Monday evening Business meeting, Professor Kazuya Kobayashi received 43 votes against 30 votes of the runner-up (Professor Sembiam Rengarajan). Altogether 25 Official Members participated in the vote (two ballots were cast on-site). Professor Kobayashi was later confirmed on Tuesday as the in-coming Vice Chair by the Council.

2. Results of Election of Early Career Representative

Likewise two candidates were running for the ECR representative for Commission B for 2014–2017. In the vote during the Monday evening Business meeting, Professor Lianlin Li received 27 votes against 26 votes of the runner-up (Dr. Joseph Constantine). Altogether 18 Member Countries participated in the vote (six ballots were cast on-site). Due to the very close result, Commission B decided to leave the final selection to the Council. The Council selected in its Tuesday meeting Professor Li as the Early Career Representative for Commission B.

3. Appointment of Associate Editor for Radio Science Bulletin

Both the new Vice Chair Kazuya Kobayashi and the Early Career Representative Lianlin Li were nominated as Associate Editors for *Radio Science Bulletin*.

4. Updates/Status of Working Groups

The status of Working Groups was not discussed.

5. Updates to Terms of Reference of Commission

Commission B Terms of Reference were discussed. No updates were necessary.

6. Meetings proposed to be supported in the coming triennium

The main event of Commission B is the triennial Electromagnetic Theory Symposium (EMTS). This will be held in Espoo, Finland, in 14-18 August 2016. The funding for the Commission from URSI (9000€) will be reserved for supporting the Young Scientists to the EMTS 2016 meeting.

Commission B will also work actively in the preparation and organization of the symposia of the parent organization; URSI GASS (Montréal, 2017) and the emerging AT-RASC (Gran Canaria, 2015).

Concerning the triennium 2017–2020, the proposal by the USNC of URSI to hold the 2019 EMT Symposium in San Diego, California was accepted. The proposal was presented by Professor Sembiam Rengarajan, the US Member Committee representative in Commission B.

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

Commission B organized 14 oral sessions and 2 poster sessions. In addition, Commission B was the lead commission in 7 oral sessions and participated in 12 other joint sessions. Altogether, 98 oral papers and 107 posters were accepted. Only one no-show occurred in the oral sessions.

The Commission B Tutorial lecture "Controlling waves on metasurfaces" was given by Professor Stefano Maci of the University of Siena, Italy.

Overall, the sessions organized by Commission B were extremely successful. The quality of the presentations was very high and the sessions attracted a large number of participants, over one hundred at peak.

Commission B organized also an 8-hour School for Young Scientists on Saturday and Sunday before the Symposium. The instructor was Professor Nader Engheta (University of Pennsylvania). The topic of his lectures was "Fields and Waves in Metamaterials".

Among the 10 finalists of the Student Paper Competition in URSI GASS, there were three candidates from Commission B. They won the three first prizes:

- 1: Filipa Prudêncio (University of Lisbon, Portugal; supervisor Professor Carlos Paiva). Her presentation was entitled "The most general classes of Tellegen media reducible to simple reciprocal media: a geometrical approach"
- 2: Simon Adrian (Télécom Bretagne, France, and Technische Universität München, Germany; supervisor Professor Francisco Andriulli). His presentation was entitled "Hierarchical bases on the standard and dual graph for stable solutions of the EFIE operator"

3: Andreas Ericsson (Lund University, Sweden; supervisor Professor Daniel Sjöberg). His presentation was entitled "A resonant circular polarization selective structure of closely spaced Morin helices"

Concerning the URSI Awards presented in the Opening Ceremony of the Beijing GASS, two awardees were closely affiliated with Commission B: Professor Nader Engheta (Balthasar Van der Pol Gold Medal) and Professor Francesco P. Andriulli (Issac Koga Gold Medal). Furthermore, the research work by the recipient of the John Howard Dellinger Gold Medal, Professor Jean-Pierre Bérenger, is directly linked to the domain of Commission B.

8. Other business

Commission B officials for the triennium 2014–2017 are

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