

International Association of Geodesy (IAG)
within
International Union of Geodesy and Geophysics (IUGG)

Activities Report - Year 2019

Mattia Crespi

1. Introduction

The Commission for the participation of the CNR in the International Union of Geodesy and Geophysics (IUGG) was restarted (decree of CNR President) on February 29, 2016 and I was nominated representative for the CNR within the IAG Council on May 23, 2016, and member of the above mentioned Commission on May 27, 2016.

2. Main activities carried on by IAG during 2019 relevant for Italy and for CNR

In 2019 the quadrennial term 2015-2019 was concluded and the *Italian Report 2015-2019* of the activities related to IAG was prepared and presented to the IAG General Secretary in view of the 27th *IUGG General Assembly* held in Montreal (Canada) in July 2019.

In order to present a more detailed overview of all these activities, ongoing in 2019, this Report is attached.

3. Activities carried on as Italian Delegate within the Union during 2019 and impact on the Italian scientific community

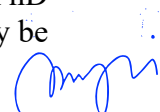
These activities are mainly related to the above mentioned (see above, item 2.) ongoing relevant projects in charge of the Sapienza University of Rome and to the organization of the following events at international level, to promote the participation of the Italian geodetic Community, with particular attention to PhD candidates, Post-Doc fellows and young researchers, to the international discussion on the hot topics in Geodesy and on the interaction of Geodesy within Geosciences:

Events

Co-organization (co-convener) of the *High-precision GNSS: methods, open problems and Geoscience applications* session at the European Geoscience Union 2019 General Assembly (April 2019)

4. Evaluation of the participation of CNR to IAG and IUGG in terms of benefits and membership cost

It has been recognized at international level the more and more increasing importance of geodetic methods and measurements for researches and applications in Geosciences, Climatology and Meteorology, Engineering and natural hazards prediction, mitigation and management. In this respect, it is of particular relevance the recognition of the fundamental role of IAG by the UN-GGIM (United Nations - Global Geospatial Information Management). It is therefore of primary importance to continue the participation within the Union, possibly stimulating a wider participation of PhD candidates, Post-Doc fellows and young researchers also promoting with a dedicated award (may be



a 2-years award to support the participation of one/two researcher(s) to the IAG intermediate symposia and IUGG General Assemblies).

5. Evaluation of Italians' attendance to IAG and IUGG events and actions to improve interest and involvement

Italians' attendance to IAG events at international and national level is limited to less than twenty Colleagues (around 15 IAG participants at the 27th IUGG General Assembly held in Montreal in July 2019), mainly since the Italian research activities in Geodesy are developed at few Universities and Institutes (Politecnico di Milano, Sapienza University of Rome, University of Bologna, University of Padua, University of Trento, University of Trieste; Agenzia Spaziale Italiana, Istituto Nazionale di Geofisica e Vulcanologia, CNR-Istituto per il Rilevamento Elettromagnetico dell'Ambiente, Istituto Nazionale di Ricerca Metrologica).

A possible initiative to widen the Italian participation could be the promotion of an Italian Committee for Geodesy under the coordination of CNR Commission for IUGG, with the main aims 1) to facilitate and coordinate the research activities of the Italian research groups working in Geodesy on the present internationally recognized hot topics (both from the methodological point of view and for application of geodetic methodologies and techniques in Geosciences, Engineering and natural hazards prediction), and 2) to empower the impact of Geodesy on the national community.

6. Italian experts with important roles within the IAG or within related Commissions and Programs

Giuseppe Bianco - Agenzia Spaziale Italiana (ASI) - Chair of the European Laser (EUROLAS) network, Member of the Governing Board of the International Laser Ranging Service (ILRS)

Vincenza Luceri - Agenzia Spaziale Italiana (ASI) - Representative ILRS within the Commission 1 Steering Committee

Rosa Pacione - Agenzia Spaziale Italiana (ASI) - Member of the European Permanent Network (EPN) Coordination Group (Troposphere Coordinator)

Riccardo Barzaghi - Politecnico di Milano - Chair of the International Gravity Field Service, Member of the IAG and Global Geodetic Observing System (GGOS) Executive Committees, Representative IGFS within the Commission 2 and Commission 3 Steering Committee

Mirko Reguzzoni, Daniela Carrion - Politecnico di Milano - President and Director of the International Service for the Geoid (ISG)

Vincenza Tornatore - Politecnico di Milano - Responsible of the Associate IVS and NASA's Goddard Space Flight Center Analysis Center PMD

Alessandro Caporali - University of Padua - Member of the EUREF Technical Working Group

Mattia Crespi - Sapienza University of Rome - Vice-President of the Inter Commission Committee on Theory (ICCT) of the IAG, Chair of the Joint Study Group (JSG) on *High-rate GNSS* of the ICCT, Representative of ICCT of the IAG within the GGOS Science Panel, Member of GNSS Augmentation to the Tsunami Early Warning System (GATEW) Group

7. If Association with CNR Commission, short summary about the 2018 CNR Commission activities


There is no CNR Commission for IAG.

8. Notes (if any)

No additional notes

9. Conclusions

On the basis of the above information, it is clear the need to stimulate a wider participation of the geodetic Italian community to the IAG international events, with particular focus on PhD candidates, Post-Doc fellows and young researchers.



To this aim, two actions are proposed again:

- the promotion of an Italian Committee for Geodesy under the coordination of CNR Commission for IUGG
- the promotion of a dedicated award to support the participation of one/two researcher(s) to the IAG Intermediate Symposia and IUGG General Assembly



Mattia Crespi

Rome, August 24th, 2020