

IACS (International Association of Cryospheric Sciences)

Activities' Report - Year 2019

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1. Introduction

The International Association of Cryospheric Sciences (IACS) is the youngest associations inside IUGG. In 2007 during the General Assembly in Prague, IACS became the eighth IUGG association replacing the former International Commission on Snow and Ice of IAHS.

One of the main IACS objectives is to support the cryospheric sciences promoting and sponsoring workshops and symposia organized by its divisions, working groups, as well as other organizations.

In February 2019 the new IACS website was opened: <https://cryosphericosciences.org/>

The IACS Bureau is posting a "IACS NEWSLETTER", which reports the activities of the IACS and is downloadable in pdf format from the site itself.

The individual registration to the IACS is free of charge. You can register at the following link: https://cryosphericosciences.org/members/membership/#iacs_stats

At the same link you will find interesting statistical information that shows how there has been an important growth in the IACS individual membership during the year 2019. The members from European countries are predominant and the category that is most represented is that of the PhD students. Both data, which are also relevant for our country, demonstrate the interest and importance of these topics closely related to the global climate changes in which the cryosphere plays an important role. Unfortunately, the statistics also reveal a still limited participation of women.

2. Main activities carried on by (Union name) during 2019 relevant for Italy and for CNR

The XXVII IUGG General Assembly was held in Montreal Canada in July 2019. I proposed and convened one of the IACS symposia (see also point 3 below). I also participated as a member of the nomination panel for the positions of the IACS bureau for 2019-2023. Both activities see the participation of an Italian researcher for the first time, and as such they are significant for both Italy and the CNR, as they highlight the importance of Italian researchers in the international community.

3. Activities carried on by (Italian Delegate name) within the Union during 2019 and impact on the Italian scientific community

In 2019, as done in previous years, information related to IUGG / IACS and the possibilities of support from IUGG and IACS were sent to the Italian glaciological scientific community (Italian Glaciological Committee). IACS newsletters have been forwarded to the Italian glaciological community. On these occasions, the possibility of individual membership to the IACS was renewed.

I have been convener of a IACS symposium at the XXVII IUGG General Assembly entitled C06- "New frontiers in paleoclimate reconstructions and proxy interpretations from ice cores" (<http://iugg2019montreal.com/c.html>). Several Italian researchers participated in the symposium and two contributions were assigned by the IACS to young Italian researchers to participate in the assembly. Considering the distance of the event, both factors are to be considered as positive effects.

I participated at the nomination panel for the positions to be filled within the IACS bureau for the period 2019-2023. The committee is responsible for preparing a slate of candidates to stand for election at the IUGG Montreal General Assembly. The committee, composed of Ralf Greve, Samuel Morin and myself, assessed the proposals received and selected a list of candidates for the positions of President-elect, Secretary General, Vice-presidents, and Division heads. The list was presented at the IACS Plenary Administrative Meeting in Montreal on July 12, 2019, in which I participated. During the meeting, the elections were held and the names

of the "Officers" in office for the period 2019-2023 are visible at the following link <https://cryosphericsscience.org/organization/officers/>

These activities that see the participation of an Italian researcher for the first time, as well as the assignment of contributions to young researchers who deal with the cryosphere, certainly give international visibility to the Italian scientific community. The repercussions are essentially linked to the possibility for the Italian scientific community to highlight its expertise and to create new international collaborations.

4. Evaluation of the participation in terms of benefits and membership cost

As I have already observed in previous reports, even with limited support, the involvement and sponsorship of events by the IACS in the cryosphere is of fundamental importance for enhancing the activities of the Italian scientific community at an international level. I believe that participation in the Union is of fundamental importance.

The presence since June 2019 of a new CNR Institute of Polar Sciences and the activation in 2019 of a PhD in Polar Sciences at Ca 'Foscari University of Venice are already in themselves clear reasons for continuing the Italian participation in the IACS and IUGG.

5. Evaluation of Italians' attendance and how to improve interest and involvement

The possibility of individual membership free of charge to the IACS since February 2017 has certainly led to a greater involvement of the Italian scientific community, and in particular of young researchers, in activities related to the IACS. Statistics that show a significant increase in individual registrations to the IACS during 2019, are a confirmation of the importance of opening individual memberships to scientific associations. The participation of Italian researchers in the symposium and the assignment of contributions to young Italian researchers to participate in the assembly can be considered as positive effects, which enhance the activities of the Italian scientific community at an international level.

The creation of new working groups within one of the currently existing divisions, or the participation in existing ones, which currently do not see the presence of Italians in the positions of head of division, could increase the involvement of the scientific community.

6. Italian experts with important roles within the Union or within related Commissions and Programs (if known)

There are no Italian experts with apical roles inside the IACS but there are experts in other related programmes as reported in the following: Carlo Barbante, Delegate CNR in IASC (International Arctic Science Committee) and Giovanni Macelloni, Alternate Italian Delegate in IACS/IUGG and Member of the Italian Scientific National Commission of Antarctica (CSNA), Italian focal point of the Global Cryosphere Watch – of WMO (GCW-WMO) and member of the Cryonet Team of the GCW.

7. If Union with CNR Commission, short summary about the 2019 CNR Commission activities

I participated by email and videoconference to the various activities and requests by the CNR-IUGG Commission, with meetings in attendance both at the EGU conference in Vienna and, as a formal meeting of the commission, on 13/07/2019 in Montreal during the IUGG General Assembly.

I participated in the scientific committee of the conference "State of the art and perspectives in the predictability of natural events" held in Rome on 26 and 27 November 2019 at the CNR headquarters, promoting the initiative within the Italian community of reference and identifying and proposing two speakers at the conference on topics related to the cryosphere:

-Dott. Mauro Valt (ARPAV, Arabba): *"The prediction of avalanche danger: between climate change and the effects of the Vaia storm"*.

-Prof. Massimo Frezzotti (Università di Roma3): *"Glaciers: environmental resource, slope instability and sea level rise"*.

8. Notes (if any)

None

9. Conclusions

The free and individual registration to the IACS, the presence of a new website and associated newsletters have already led to a greater involvement of the Italian scientific community in the activities of the IACS, which in recent years has both financed international initiatives in which there was an important involvement of the Italian scientific community, as occurred in the case of the PAIS (Past Antarctic Ice Sheet Dynamics) Conference organized in Trieste in September 2017, and supported young Italian researchers to participate in the XXVII IUGG General Assembly in Montreal in Canada in July 2019.

Signature

A handwritten signature in blue ink, appearing to read 'Borsari', is written on a light blue rectangular background.

Venezia, 26/05/2020