### Name of the Union IAMAS-IUGG

### Activities' Report - Year 2021 Delegate/Author Name Mario Marcello Miglietta

#### 1. Introduction

As in 2020, also in 2021 the pandemic slowed down all activities related to IAMAS, both nationally and internationally. At national level, because of the emergency, the second part of the workshop "State of the art and perspectives on the prediction of natural events", scheduled for 2021 and promoted by the "National Commission for the participation of the CNR in IUGG", has been postponed. Internationally, there has been a slowdown in the activities of the IAMAS Executive Committee, and the joint IAMAS / IACS / IAPSO meeting, scheduled for July 2021 in Busan (South Korea), has been postponed to July 2025.

#### 2. Main activities carried on by (Union name) during 2021 relevant for Italy and for CNR

It is a moment of great news for meteorology in Italy. The Italia Meteo agency, headed by dr. Carlo Cacciamani, is taking its first steps, and is launching, together with the Italian Air Force, a series of exploratory meetings to define the possible contributions to the newly created agency that the various bodies dealing with meteorology in Italy could provide. The undersigned will inform the "National Commission for the participation of the CNR in IUGG" when the meeting relating to the ground stations will be called, since it is of potential interest also for other IUGG associations.

As IAMAS national representative, the undersigned was invited to the Uni-Met annual meeting, which he attended on 2 October 2021 at the Modena Geophysical Observatory. Uni-Met constitutes a sort of discussion and coordination table of numerous Italian meteorological associations, to which the previous IAMAS national delegate (dr. Teodoro Georgiadis) provided the endorsement, renewed during the IUGG conference in Montreal in 2019. The undersigned reaffirmed the support for the activities of the table and encouraged the extension to new associations, given the importance of the initiative also within the AMPRO structure (Association of Italian Professional Meteorologists).

A remote seminar cycle was held to replace the IAPSO / IACS / IAMAS Joint Assembly (VACO-21), scheduled for July 2021 in Busan, South Korea and postponed to 2025. The seminars were advertised to the Italian meteorological community in various mailing lists.

The activities of IAMAS were presented in a short article for the newsletter of AISAM (Italian Association of Atmospheric Sciences and Meteorology). The undersigned expressed to the president of the Association, prof. Dino Zardi, the interest in creating synergies between AISAM and IAMAS.

There were few activities (conferences / schools / workshops) in presence in Italy in 2021, including the workshop on "Cyclones and aerosols" (organized as part of the COST action on Mediterranean cyclones), held last September in Castro Marina (the undersigned was a member of the organizing committee).

## 3. Activities carried on by (Italian Delegate name) within the Union during 2021 and impact on the Italian scientific community

Almost all meteorological activities in presence planned within our country in 2021 have been canceled; therefore, no endorsement requests were received from the IAMAS national delegate. However, the CVC "Convective and Volcanic Cloud detection, monitoring and modeling" (http://www.cvctrainingschool.org) school, canceled in both 2020 and 2021, has been scheduled for 2022 and, at the request of the organizers, the undersigned is collecting information to apply for an economic support under the IUGG-Grant Program 2022-2023.

Last summer, a remote meeting of the IAMAS Executive Committee took place, also open to national delegates. The undersigned reiterated the interest in the establishment of a new commission dealing with mesoscale meteorology, already formulated during the meeting held in Montreal, given the lack of attention in the current IAMAS commissions to phenomena that can have a strong local impact. Although there are evident overlaps with the topics dealt with by some commissions, for example the commission on dynamic meteorology and the one on clouds and precipitation, the undersigned believes that a specific focus on the study of these phenomena is necessary, considering their potential impact and also taking into account on the one hand the growing importance of attributing these events to climate change, of which the Mediterranean is a hotspot, on the other hand the possibility of numerical models to solve finer and finer scales. The request was not accepted, but a greater representativeness of mesoscale phenomena was ensured within the Commission on Dynamic Meteorology (ICDM), chaired by prof. Thomas Spengler.

In the framework of the "National Commission for the participation of the CNR in IUGG", a workshop on the different types of prediction of natural events and risks was scheduled, following the one held in Rome on 26-27 November 2019. The second part of the workshop on "State of the art and perspectives on the prediction of natural events", focused on the prediction of natural hazards both in the short and long range, should have considered the types of hazards neglected in the first event, also considering the interaction with stakeholders. The activity has been postponed to a later date.

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

The situation created by the pandemic makes it difficult to evaluate the participation in the Union in relation to the benefits / costs of membership in 2021. This evaluation must then be made over a longer period, from which it emerges how the participation in the Union has led to attention of the international scientific community the activity carried out by various national associations in the field of atmospheric sciences and meteorology, and made it possible to benefit from a part of the funding allocated for this purpose (such as the TEAMx workshop of 2019 financially supported by IAMAS-IUGG, in which many Italian researchers participated). Therefore, these considerations indicate how the benefit / cost ratio is certainly to be considered favorable.

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

The establishment of the "Commission for the participation of the CNR in IUGG" was certainly very important in coordinating and strengthening national activities within the Association, but the emergency has significantly limited this process. The slowdown in the pandemic should favor the resumption of the work of the commission.

The request for a greater presence of mesoscale phenomena within the Commission on Dynamic Meteorology (ICDM) should stimulate greater interest from the national community, given the impact of these phenomena on the national territory. Contacts have already been initiated with some national associations in meteorology for greater interaction with IAMAS.

The application for funding under the IUGG-Grant Program 2022-2023 for the CVC2022 school is highlighting the complexity of the procedure. If the call were to be really accessible to all, it would be necessary to simplify the process, making the application form accessible without requesting it from the secretariat of the associations.

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

- Maria Cristina Facchini (ISAC-CNR): member of the International Commission on Atmospheric Chemistry and Global Pollution (ICACGP)

- Christina Plainaki (INAF-IASP): secretary of the International Commission on Planetary Atmospheres and their Evolution (ICPAE)
- Alcide Giorgio di Sarra (ENEA / UTMEA-TER): member of the International Radiation Commission (IRC)
- Teodoro Georgiadis (IBE-CNR): member of the Capacity Building and Education Committee

# 7. If Union with CNR Commission, short summary about the 2021 CNR Commission activities NO

#### 8. Conclusions

The balance of the third year as a national IAMAS delegate is affected by the slowdown of the activities in presence both nationally and internationally. However, various activities were carried out:

- interaction with national meteorological associations;
- dissemination of IAMAS activities in the national community;
- promotion of the possibility of funding for schools/workshops (IUGG Grant).

It is hoped that in 2022 it will be possible to resume activities in presence with greater continuity, supporting new internal (workshops) and external (schools) initiatives, improving interaction with the various national associations in the sector, and promoting greater representativeness of mesoscale meteorology in the work of the Commission on Dynamic Meteorology.

Padua, March 7, 2021

Signature

Mario Migliette