

## **2<sup>nd</sup> workshop for the collaboration of Iranian universities with the CMS experiment at CERN**

In a one day workshop, organized by the *Physics*, and *Electrical and Computers Engineering* departments of the Isfahan University of Technology, the status and prospects of the collaboration of Iranian institutes with the CMS experiment at CERN were reviewed.

The workshop was inaugurated by Prof. Dr. Abtahi, the president of the university. He emphasized that any participation in international collaborations like CERN helps to organize and stabilize internal research programs. “Science for peace, which is one of the greatest missions of CERN, is the need of our world and region today”, he said.

A brief history of Iran collaboration with CERN experiments was presented by Prof. Dr. Reza Mansouri, an emeritus professor at Sharif University of Technology and one of the initiators of Iran Memorandum of Understanding with CERN. Iran collaboration with CERN experiments has been led by the Institute for Research in Fundamental Sciences (IPM) for about two decades. The collaboration was expanded in 2019 when Isfahan University of Technology was offered a full membership to the CMS experiment. According to Prof. Mansouri, in addition to the scientific vision and clear plans, soft skills are crucial to not miss any opportunity for a successful scientific program.

Next, Prof. Dr. Luca Malgeri, the Spokesperson of the CMS experiment at CERN, highlighted the contribution of Iranian institutes in the construction and upgrade of the CMS detector. Prof. Malgeri praised the impact of Iranian physicists on the CMS physics program despite the relatively small size of the institutes. “Iran at the moment counts two institutes that are very active also in physics, which is the main objective of CMS and the LHC. For example Nadjieh (Dr. Abideh Jafari, IUT) is a prominent physicist with very high responsibility and visibility in top physics ...”, he said. Prof. Malgeri finished by inviting especially the young generation to join activities in CMS, while welcoming more contributions in various areas including *Offline and Computing*.

The event continued with notable presentations from Prof. Dr. Shahram Rahatlou and Dr. Frank Hartmann, respectively, on the physics and upgrade program of the CMS experiment. In addition, in-house knowledge and expertise as well as status

and plans were discussed by experts from national institutes, drawing attention to potential contributions in future colliders. Sessions featured fruitful discussions despite being virtual due to pandemic.

In order to make the workshop more beneficial for students and newcomers, a three-days school was held beforehand. The participants attended a series of lectures covering a number of fundamental topics in experimental particle physics. They also experienced a hands-on exercise on data analysis using CMS Open Data.

For more information regarding the talks and the agenda please visit the workshop website at <https://indico.cern.ch/e/iut1400>.