The annual meeting of the collaboration High Energy Density at FAIR (HED@FAIR) was held this year in Spain, hosted by the Institute for Energy Research (INEI) at the University of Castilla-La Mancha, from October 3rd to 5th. During these three days, about 50 of researchers from Germany, Russia, Spain, China, United Kingdom, and Czech Republic, have made reports about their most recent scientific progress and discussed new results related with the design and performance of experiments to be carried out at the upcoming facility for antiproton and ion research (FAIR) facility.

The meeting was open by an introductory talk by the collaboration spokesperson A. Golubev, who gave a general overview of the present status of the collaboration and of the progress of the FAIR civil work. After the ground breaking ceremony in summer 2017, the FAIR construction site is now well under way with major work being done on the SIS-100 synchrotron building that is best illustrated by the regularly-updated drone videos made available on GSI webpage (https://www.gsi.de). In the coming months, the call for tender for the construction of the south area that includes the plasma physics experimental area should be closed, at about the time of the next project evaluation in 2019. First experiments are still planned for 2025.

During the meeting a total of 29 speakers exposed their results on different aspects of the collaboration. The HED science at FAIR and at other facilities was presented by researchers from Germany, USA and China. Advances in the development of the proton radiography system PRIOR were discussed by researchers from Germany and Russia. German researchers discussed about the technical infrastructure, and diagnostic developments for the HIHEX experiment were presented by Russian and German scientists. Besides, researchers from UK, Czech Republic, USA, Russia and China illustrated the audience about the plasma physics research programs at respective facilities in their countries. By last, researchers from Spain presented theoretical work to support some of the experiments planned in the collaboration.
Call for expression of interest (EOI) on diagnostics

Diagnostics are essential to all types of plasma physics experiments. Along experiment-specific diagnostics, the HED@FAIR collaboration wants to establish a suite of diagnostics that will be available for all to work with. These diagnostics include stand-alone devices like fast oscilloscopes and cameras, streak cameras and X-ray detectors. They also include more complicated setups like VISAR, pyrometers for instance.

Discussions on possible contributions and expression of interest have taken place during the annual meeting in Ciudad Real, during a dedicated session and also on bi-lateral basis during the meeting. The executive board would like to remind all interested collaboration partners to contact them ASAP and no later than Dec. 31st 2018 if they wish to overtake the responsibility of one or several diagnostics for FAIR. EOI should be addressed to the collaboration spokesperson or the chair of the collaboration board.

For information, a list of typical diagnostics is described in the technical design report:
https://www.gsi.de/fileadmin/Plasmaphysik/HED_at_FAIR/APPa_cave/TDR_FAIR_diagnostic_nocost.pdf

HED@FAIR logo

The collaboration is looking for a logo. Interested persons should contact Stephan Neff (stephan.neff@fair-center.eu)

HED@FAIR calendar

FAIR meetings

- Joint scientific council (FAIR and GSI): November 8th & 9th, 2018
- FAIR Evaluation: April 2019

HED@FAIR meeting

- 39th PHEDM, Jan. 27th - Feb. 1st 2019, Hirschegg Austria – annual workshop of the community https://www.gsi.de/hirschegg
- Next HED@FAIR board meeting, Jan. 28th 2019, Hirschegg, Austria
- Topical meeting on compression experiments with high explosives – Freiberg, Germany. Contact person: Th. Schlothauer (thomas.schlothauer@mineral.tu-freiberg.de)
- Next HED@FAIR annual Meeting, June 2019, Moscow, Russia. Contact person: Alexander Golubev (alexander.golubev@itep.ru)