

## Abstract

ChETEC-INFRA is a European Union's Horizon 2020 research and innovation program. It stands for '**Chemical Elements as Tracers of the Evolution of the Cosmos – Infrastructures for Nuclear Astrophysics**'.

Nuclear astrophysics requires a diverse set of research infrastructures for progress: telescopes for astronomical observations, nuclear laboratories to measure nuclear properties and rates, and supercomputers to compute complex stellar models. ChETEC-INFRA is a Starting Community of Research Infrastructures that networks altogether 13 such infrastructures from a variety of European countries. It is run by the Institute of Radiation Physics of Helmholtz-Zentrum Dresden-Rossendorf (<https://www.chetec-infra.eu/>). The Department of Accelerator Mass Spectrometry and Isotope Research of the Institute of Ion Beam Physics and Materials Research contributes by offering access to its AMS facilities and is involved in the Mass Spectrometry networking activity.

From 2021-2025, ChETEC-INFRA provides free access to these infrastructures to researchers from any country, with proposals selected based on scientific excellence only. In addition, dedicated work packages improve the usability and accessibility of the three types of infrastructures and network them with each other, with the nuclear astrophysics community, and with other scientific disciplines.

ChETEC-INFRA includes 32 partner institutions from 17 countries aiming to serve both the European and international nuclear astrophysics communities and are networked with related efforts in the United States, China, and Japan.

ChETEC-INFRA rests on three types of activities:

- Providing Transnational Access to 13 facilities across Europe to facilitate the access and use of these infrastructures for nuclear astrophysics research.
- Coordinating Joint Research Activities to develop and improve the capabilities to use infrastructures for nuclear astrophysics.
- Conducting Networking Activities to further connections within the interdisciplinary field of nuclear astrophysics.