

## Towards a international federated cloud for astronomers

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Canadian Advanced Network for Astronomical Research (CANFAR) is digital infrastructure combining the Canadian national research network (CANARIE), cloud processing and storage resources (Compute Canada) and a data centre (Canadian Astronomy Data Centre) into a unified ecosystem for storage and processing. It is an operational system for the delivery, processing, storage, analysis, and sharing of very large astronomical datasets.

The project has combined the best features of the grid and cloud processing models by providing a self-configuring virtual cluster deployed on multiple cloud clusters. The project has provided users a robust and secure virtual storage environment layered on distributed storage resources. The CANFAR services make use of many technologies from the grid, cloud and International Virtual Observatory communities.

In this talk we will present CANFAR infrastructure and its capabilities and we will discuss the preliminary steps for federating CANFAR and EGI to create an ecosystem for the Astronomy and Astrophysics community.

**Presenters:** TAFFONI, Giuliano (INAF - IASF Bologna); GAUDET, Severin (National Research Council Canada)

**Session Classification:** Federated Cloud IaaS - towards an international multi-disciplinary science cloud (<http://go.egi.eu/iaas>)