

# Post-Doc position

## Study of non-thermal emission from galaxy clusters with LOFAR and NenuFar

Supervisor: Annalisa Bonafede



European Research Council  
Executive Agency



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA

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**We are offering a 1 year Post Doc position at the University of Bologna to study the non-thermal emission from galaxy clusters with LOFAR and NenuFar**

### **Requirements and preferred titles**

The ideal candidate should have a PhD in astronomy or physics, a previous experience as Post Doc, a good knowledge of the non-thermal phenomena in extragalactic objects, and experience with radio interferometric observations in total intensity with SKA precursors especially LOFAR, using the international baselines, and NenuFar, a good knowledge of python, as well as knowledge of galaxy cluster physics will be positively evaluated. The ideal candidate is expected to be able to develop the software used by the LOFAR community, such as DDF, and port it to other interferometers.

### **Research context:**

This postdoc is part of a larger project DRANOEL (*Deciphering RAdio NOn-Thermal Emission on the Largest-scale*) financed by the European Research Council (ERC-2016-STG 71425). The Post Doc will work in close contacts with the other group members and will be part of the LOFAR cluster group within the Survey key science project.

The Post Doc will have privileged use of state-of-the-art computing facilities and early access to large survey data from LOFAR. The successful candidate will be part of the LOFAR collaboration, which includes hundreds of scientists across the European continent. Funding for travel to attend and present at domestic and international meetings are available.

The University of Bologna offers a diverse and rich research environment. The astronomy group is located in a campus together with two departments of the Italian institute for astrophysics - INAF - (IRA - radio astronomy institute and Astrophysical observatory).

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For more information, contact  
**[annalisa.bonafede@unibo.it](mailto:annalisa.bonafede@unibo.it)**