

---

# The NenuFAR project

Michel Tagger<sup>\*1,2</sup>, Philippe Zarka<sup>3</sup>, Laurent Denis<sup>2</sup>, Julien Girard<sup>4</sup>, and And The  
Nenufar Collaboration

<sup>1</sup>Laboratoire de Physique et Chimie de l'Environnement et de l'Espace (LPC2E) – CNRS : UMR7328,  
Université d'Orléans, Observatoire de Paris – 3A, Avenue de la Recherche Scientifique 45071 Orléans  
cedex 2, France

<sup>2</sup>Unité Scientifique de la Station de Nançay (USN) – CNRS : USR704, Observatoire de Paris, Université  
d'Orléans – 18330 NANCAY, France

<sup>3</sup>Laboratoire d'études spatiales et d'instrumentation en astrophysique (LESIA) – Université Pierre et  
Marie Curie [UPMC] - Paris VI, Observatoire de Paris, INSU, CNRS : UMR8109, Université Paris VII -  
Paris Diderot, Université Pierre et Marie Curie (UPMC) - Paris VI – 5, place Jules Janssen 92190  
MEUDON, France

<sup>4</sup>Astrophysique Interactions Multi-échelles (AIM) – CEA, Université Paris VII - Paris Diderot, INSU,  
CNRS : UMR7158 – Service d'astrophysique Orme des Merisiers F-91191 GIF SUR YVETTE CEDEX,  
France

## Résumé

I will present NenuFAR (New Extension in Nançay upgrading LOFAR), launched as an extension to FR606, the french LOFAR station. Following a definition and prototyping study under a previous ANR contract, it will consist in a set of 15 (phase 1) to 96 (full project) mini-arrays (MA) of 19 antennae each. The MAs will be analog-phased, and optimized for the full 15-80 MHz band.

With the addition of a dedicated receiver, NenuFAR will be both and simultaneously

- an addition to LOFAR, the europe-wide Low-Frequency Array, of which it will significantly increase the capabilities as an alternative to the LBA of FR606;;
- and a stand-alone instrument, available for an original and autonomous scientific program.

---

<sup>\*</sup>Intervenant