RadioNet support for scientific events

Application form for organisers

EVENT INFORMATION	
TITLE	EPTA Autumn Meeting
PLACE	*Chateau de Goutelas, 42130 Marcoux, France*
ORGANISER'S INSTITUTE NAME	*Paris Observatory – USN*
DATE	*October 7th-9th, 2019*
NO. OF PARTICIPANTS	*35*
TOTAL EVENT COST	*10 630,00 €*
€RADIONET SUPPORT	*4 000,00 €*
OTHER SOURCES OF FUNDING	*3 000,00 € (CNRS/INSU – French national funding)* *3 630,00 € (registration fee from participants)*

REQUEST *(max. 2 pages)*	
Short abstract of the event	*The European Pulsar Timing Array (EPTA) is a consortium of European radio observatories and research teams created in 2006. Its main science objective is the detection of gravitational waves in the nHz-μHz domain. This is a long term project that requires the collection of data time series over decades, advances in the theoretical understanding of the gravitational sky and the development of new generations of algorithms to separate the multiple sources of noise superimposed on the signal of interest. The collaboration is structured in methodological working groups (instrumental development, timing data acquisition, data analysis, simulations and data challenges) interacting monthly through teleconferences. It also meets twice a year in face-to-face workshops, in spring and autumn. The present proposal concerns the funding of the second 2019 meeting, which will take place in France (Goutelas Castle, vicinity of Lyon) during the second week of October.*
Relevance for RadioNet	*Five European radio telescopes participate in the collection of millisecond pulsar times of arrival, using state of the art dedicated backends designed to coherently dedisperse the signal after its travel through the ionised interstellar medium (ISM). At each telescope, the observing time dedicated to high precision pulsar timing goes from a few hundred to a couple thousand hours per semester. The instrument involved are the Lovell telescope (Manchester, UK), Effelsberg (Bonn, Germany), WSRT (Westerbork, NL), SRT (Cagliari, Italy) and NRT (Nançay, France). In parallel to the high cadence observations conducted at each individual telescope, the LEAP experiment provides once a month, in 25 hours sessions, coherently added beamformed data from the five instruments. This provides us with additional high sensitivity data from a 200-m equivalent dish. Furthermore, LOFAR also contributes to e.g. second order monitoring of the ISM dispersion measure and there is an ongoing project to involve e-Merlin, just as for LEAP, through the coherent addition of a subset of its antennas. On top of this observational activity, the EPTA acts as a school to form young pulsar radio astronomers, and coordinates multiple short term scientific projects that are led by European students and post-docs.*
Impact on RadioNet	*EPTA bi-annual workshops are both a place of scientific exchanges about the last developments within the different working groups and projects, and a place of debate and management of the collaboration. This is where we collectively elaborate the guidelines of the collaboration, write down or update the various policies (authorships, membership, structure), define and set-up student/post-doc projects, and where we discuss the interface of the European group with the rest of the world.* *Since the foundation of the EPTA, Radionet has been the natural environment where to build our continental collaboration. It offers a common space of exchange both for scientific and instrumental developments. Alternatively, EPTA provides a unique collective use of Europe's largest radio telescopes, just as does EVN for imaging, for high precision timing and coherent*

	beamforming. It represents the contribution of Radionet to the worldwide effort assembled in the so-called International Pulsar Timing Array (IPTA). We expect that this global collaboration will lead, in the timescale of a few years, to the first ever detection of gravitational waves in the low frequency regime and eventually reveal the population of super massive black hole binaries, expected to be host by post-merging galaxies in the ΛCDM scenario.
Use of the RadioNet contribution	*Radionet support will be used to contribute to the logistics of the meeting (room rental, coffee breaks and meals, shuttle bus from the airport) and to the accommodation of some of the students and post-docs. The event will take place in the Goutelas Castle, 1h30 drive from Lyon international airport (http://www.chateaudegoutelas.fr/). The place offers 27 single/double bedrooms and multiple conference and meeting rooms. The meeting will start on Monday morning October 7th and end on next Wednesday after lunch.* *Expenses :* *lodging, meals and coffee breaks (35 participants, 3 nights): 7530 €* *meeting rooms: 2100 €* *shuttle bus from airport (25 people, quote from Flixbus): 1000 €*
Ethics	*The EPTA (and IPTA in general) takes gender and ethnic issues extremely seriously. In consequence the EPTA has adopted an anti-harassment policy (available here: chrome-extension://oemmndcbldboiebfnladdacbdfmadadm/http://ipta.phys.wvu.edu/files/IPTAantiharassment3.pdf) to ensure a sound working environment to its members; and an "IPTA Diversity Committee" (made of six members, including two from the EPTA) makes sure that the policies are indeed respected. Finally, we will make sure that all genders and ethnicities are well represented among participants and speakers.*

Privacy Policy: *With signing this template and applying for RadioNet funding, I accept the Privacy Policy of RadioNet, which is based on the EU General Data Protection Regulation (GDPR).*

Place & Date: Nançay, France, January 22nd 2019

Signature of the applicant

Gilles Theureau