

RadioNet support for scientific events

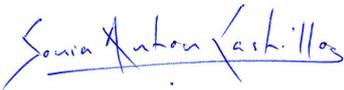
Application form for organisers

EVENT INFORMATION	
TITLE	Multi-messenger astronomy with SKA precursors and pathfinders, a capacity building workshop
PLACE	<i>Aveiro -- Portugal</i>
ORGANISER'S INSTITUTE NAME	<i>Center for Research & Development in Mathematics (CIDMA), Univ. de Aveiro Departamento de Física, Univ. de Aveiro and Instituto de Telecomunicações, Univ. de Aveiro Campus Universitário de Santiago, 3810-193 Aveiro Sonia Antón -- santon@ua.pt Domingos Barbosa – dbarbosa@av.it.pt</i>
DATE	<i>3 April – 5 April 2019 (to be confirmed)</i>
NO. OF PARTICIPANTS	<i>40</i>
TOTAL EVENT COST	<i>4 000 euros</i>
RADIO.NET SUPPORT	<i>2 000 euros</i>
OTHER SOURCES OF FUNDING	<i>National funding from (1) Fundação Ciência e Tecnologia (FCT), under request (2) University of Aveiro: auditorium/infrastructure</i>

REQUEST

(max. 2 pages)

<p>Short abstract of the event</p>	<p>The goal of the workshop is to bring together the Portuguese scientific community that works in different domains of, and related to, astronomy (astronomers, cosmologists, astroparticle physicists, etc), to foster the interest in radio-related facilities, also in the framework of multi-messenger astronomy, in preparation to the advent of SKA. This is the moment, considering the expected joining of Portugal to SKA organization, in late 2018. With this workshop we propose to show to the community the potential of the multi-messenger astronomy with the existent radio facilities, in particular SKA precursors and pathfinders. We plan a 3-day meeting consisting in review talks, hands-on-sessions and round-about tables, with the main goal of maximising the interaction between experts and the community. For that we want to invite speakers from the major European and SKA-related radio facilities: EVN, e-MERLIN, LOFAR and MeerKAT. In parallel we will invite the Portuguese experts involved in the existent and near-future big missions such as ALMA, EUCLID, ELT. In order to facilitate the presence of South Africa researchers, we propose to have the workshop in Portugal the week before the SKA Science meeting in Manchester (next April 2019).</p>
<p>Relevance for RadioNet</p>	<p>The Square Kilometer Array interferometer will be the cornerstone of astronomy for many years in the radio domain, and in combination with other new generation instruments will boost knowledge by orders of magnitude. It is expected that Portugal will join SKA consortium later in this year. It is now the moment to further engage the Portuguese scientific community in the SKA era, in order to take the most of what is foreseen as the golden era for radio-astronomy.</p> <p>The Portuguese astronomy community, as in many other ESO member countries, has been mostly enrolled in optical, infrared astronomy, and with the advent of ALMA, marginally in the submillimetre band. We believe that the best way to motivate the community is by showing the synergies between the radio and other domains -- including particle messengers considering the community working in ultra high energy cosmic rays, that may take advantage of low frequency radio detectors, like LOFAR, as an air shower detector. In parallel we want to engage the industry, both in terms of data-related subjects and in terms of engineering aspects.</p> <p>There are many possible ways to demonstrate the potential of the multi-messenger astronomy. We believe that the best is by showing what the existent SKA pathfinders and precursors can already offer, including direct demonstrations via "hands-on". Following is the basic format of the scientific program:</p> <p>day1: SKA and SKA precursors: morning dedicated to MeerKAT, afternoon dedicated to hands-on session plus a round-a-table discussion; day 2: morning dedicated to LOFAR , ASKAP and MWA, afternoon dedicated to hands-on session plus a round-a-table discussion; day 3: morning dedicated to EVN and e-MERLIN, afternoon dedicated to hands-on session plus a round-a-table discussion. In the round-a-table discussion we aim to have the presence of the Portuguese stakeholders in existent and near-future facilities, namely: ALMA, EUCLID and ELT. Hands-on sessions are planned to be very effective in the demonstration of multi-wavelength research, taking the most of existing tools that facilitate the management of data from different instruments/bands.</p> <p>The scientific organization will be chaired by Sonia Antón and Domingos Barbosa, and will count with the presence of representative members of the Portuguese scientific community. We plan to invite key people with expertise in different astronomical</p>

	<p>facilities, a tentative list includes: Anna Scaife (Univ. Manchester), Neil Jackson (Univ. Manchester), Jeff Wagg (SKA), Paco Colomer (JIVE), Robert Beswick (e-MERLIN), Mario Santos (UWC), Jarle Brinchmann (Univ. Leiden), Carlos Martins (CAUP/IA), José Afonso (IA), all to be confirmed, also depending on the budget approval.</p> <p>We have a long experience in promoting radio-astronomy in Portugal, as for example: YERAC 2009 meeting, "SKA" symposium and "Radio-astronomy in Iberia" special session at JENAM 2010, among other examples. In some cases we received the support from Radionet. We believe to have the right expertise to successfully organise this workshop.</p>
Impact on RadioNet	<p>Promotion of the existent RadioNet facilities, in terms of both scientific research and technical developments, with the main aim to prepare the Portuguese community to the near future cornerstone radio infrastructure, ie SKA. The goal is to bring together astronomers "from other wavelengths", but also astroparticle physics, in particular those involved in high energy cosmic ray experiments (Auger) or future gamma-ray observatories, and software developers (eg Critical Software).</p>
Use of the RadioNet contribution	<p>Cost estimates: the funding will be allocated to support the expenses of invited speakers, and a fraction of the attendees. Considering that the main target is the Portuguese community (but of course will be open to worldwide) the expenses to support some of the attendees should be modest. For the invited speakers, we estimate a cost of ~ 400 euros/person, that includes ~250 euros travel expenses, 3 night accommodation (40 euros/night, special University fare) and 3 lunches (~10 euros at University canteen). With radionet support we would like to support 3 invited researchers. The remaining asked funding will be allocated to coffee breaks, two/day, which to lower costs will be self service mode, with fruit, cookies, coffee and tea. In order to maximise the number of attendees, we will do our best to not charge any fee.</p>
Ethics	<p>It is our believe that one of the best ways to promote fair society attitude is by acting in first place among the youngest. We have a long experience in dissemination, including initiatives in collaboration with Visao Junior (http://visao.sapo.pt/visaojunior), a unique and very successful magazine fully dedicated to teenagers. For this reason, and in order to reach a large number of children, we propose to have a dedicated section in Visao Junior, the subject being the many-faces (literal and nonliteral) of science, where we will propose the participation of the attendees to give their testimony (we will provide a translated version for publication), covering the broadest social aspects as possible (gender, age, nationality, different culture,etc). To our knowledge, this would be the first time of such initiative.</p>
<p>Privacy Policy: With signing this template and applying for RadioNet funding, I accept the <u>Privacy Policy of RadioNet</u>, which is based on the EU General Data Protection Regulation (GDPR).</p> <p>Place & Date: _____ Signature of the applicant: _____</p> <p>Aveiro, 01 July 2018 </p>	

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