


RadioNet support for organisers of training events

Application form

EVENT INFORMATION	
TITLE	Sub-second structures in low frequency solar radio observations http://www.astro.gla.ac.uk/users/sophie/radioworkshop
PLACE	Glasgow, United Kingdom
ORGANISER'S INSTITUTE NAME	School of Physics and Astronomy, University of Glasgow. Contact: Sophie Musset, Sophie.musset@glasgow.ac.uk
DATE	8-9 April 2020
NO. OF PARTICIPANTS	20
TOTAL EVENT COST	3650 euros
OTHER SOURCES OF FUNDING	<i>Please specify the other sources of funding and their level, especially 3rd party funding (e.g. EU)</i>
REQUEST (max. 2 pages)	
Requested contribution	3650 euros
Use of the RadioNet contribution	<p>The RadioNet contribution will be used to provide:</p> <ul style="list-style-type: none"> • coffee breaks (250 euros), • travel funds for three tutors (3*800 = 2400 euros) • travel funds for students attending the workshop (1000 euros, to be distributed to students who need it). <p>This contribution covers the overall budget of the event and ensures that participants can register to this workshop for free. The room and equipment needed for the workshop are provided by the University of Glasgow. Funding of the lecturers is required to bring the expertise of astronomers outside of the organiser's institution. Partial funding for students who need it is expected to help them secure additional funding at their home institution.</p> <p>This event contributes to the RadioNet goals by providing solar radio astronomers with skills necessary to fully interpret the LOFAR solar observations, which include state-of-the-art understanding of propagation effects on solar radio emissions. Moreover, hands-on sessions provide training on a set of tools developed at the University of Glasgow for the analysis of LOFAR solar data, made available to the solar community via the SolarSoft (1). Consequently, this workshop will provide the participants with the skills necessary to fully exploit the LOFAR solar data already available at the organisers' institution servers (2) and the opportunity to start analysing sub-second features that have not been previously observed. It is expected that this workshop will result in a set of publications, therefore maximizing the science return of the LOFAR solar observations.</p> <p>(1) https://sohowwww.nascom.nasa.gov/solarsoft/ (2) http://www.astro.gla.ac.uk/users/eduard/lofar_data/</p>
Impact of training	The analysis of solar LOFAR data has been performed by a small number of solar physicists in the past few years. These recent studies have highlighted several features which are inconsistent with the current understanding of the solar radio emission mechanisms, and explored wave-propagation effects, such as radio-wave scattering, to

	<p>explain the observations. The workshop aims to train solar radio astronomers in order to be able to analyse the solar LOFAR data and interpret the subsequent results.</p> <p>The impact of this workshop includes:</p> <ul style="list-style-type: none"> • Increase in the number of astronomers trained to analyse LOFAR solar data; • Improvement of the knowledge of the community regarding wave-propagation effects on the solar radio emissions and sub-second structures in the observations; • Identification and analysis of sub-second features not previously observed in lower-cadence solar radio data. <p>This workshop will focus on LOFAR data, but the skills developed for the interpretation of high-cadence solar radio emission will be relevant to other high time-cadence data set, including upcoming observations with the SKA.</p>
Accessibility	<p>The workshop is aimed at solar radio astronomers. While the organiser does not expect to have to select participants, in case applications numbers significantly exceeding expectations, they will give priority to solar physicists, then to researchers or students already involved in radio data analysis. A balance between home institutions and level of experience of the participants will be kept.</p> <p>This workshop will take place immediately after a two-day meeting (“Alliance meeting”) on the topic of particle acceleration during solar flares, held at the University of Glasgow, gathering researchers and students from the Universities of Glasgow and Manchester, and Paris Observatory (3). This deliberate timing will provide the participants of the Alliance meeting the ability to attend the workshop while minimizing the need for travel resources. Participants of the training workshop will be welcomed to attend the Alliance meeting in order to maximize the benefit of their trip to Glasgow.</p> <p>(3) http://www.astro.gla.ac.uk/users/sophie/Alliance</p>
Ethics	<p>For this workshop, six lecturers are foreseen, half of them being from the organiser's institution and half of them being invited:</p> <ul style="list-style-type: none"> • Nicolina Chrysaphi, junior researcher, University of Glasgow, UK • Sophie Musset – Research assistant, University of Glasgow, UK • Eduard Kontar – Professor, University of Glasgow, UK • Mykola Gordovskyy – Research associate, University of Manchester, UK • Hamish Reid – Lecturer, University College London, UK • Alexey Kuznetsov – Senior researcher, Institute of Solar-Terrestrial Physics, Irkutsk, Russia <p>This panel is formed with researchers at different stages of their careers. 1/3 of the lecturers are female, which is representative of the gender balance in astronomy (4). Note that the small number of researchers experienced in LOFAR solar data analysis is a strong constraint on the constitution of the panel of lecturers.</p> <p>The workshop is intended to foster discussions and will benefit from a diverse crowd of participants: the organisers encourage participation from researchers of all levels of experience from graduate students to experienced researchers and will advertise the event to attract researchers from diverse backgrounds. Partial funding for students will provide the opportunity to support students from minorities in particular.</p> <p>The main organizer of the workshop is an early career female scientist, and therefore will benefit from the opportunity to be in a leadership position on both the scientific and administrative aspects of the event.</p> <p>(4) Cesarsky, C & Walker, H., Astronomy & Geophysics, Vol 51, Issue 2, 2010</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><u>Minneapolis, 29 Jan 2020</u> </p>	