



# RadioNet support for scientific events

## Application form

EVENT INFORMATION	
TITLE	MKSP MEETING 2018
PLACE	KRAKÓW, POLAND
ORGANISER'S INSTITUTE NAME	Jagiellonian University in Kraków Błażej Nikiel-Wroczyński – blazej.nikiel_wroczynski@uj.edu.pl
DATE	10-14.09.2018
NO. OF PARTICIPANTS	40
TOTAL EVENT COST	8800 E
RADIO NET SUPPORT	5800 E
OTHER SOURCES OF FUNDING	Conference fee (120E, waived for supported participants) + additional funds from the Jagiellonian University – a total of 3000 E
REQUEST	
(max. 2 pages)	
Short abstract of the event	<p>Low-frequency radio astronomy is a field that has recently undergone a rapid growth, owing to the introduction of new, state-of-the-art instruments. The successful implementation of the phased-array antenna system has made it possible to open a new eye on the metrewave Universe, with a combined high sensitivity, and great angular resolution. One of the instruments that follow the new design is LOFAR: the LOw Frequency ARray, three stations of which are working in Poland (one is maintained by the Jagiellonian University). Among the various fields of science for which it was built (signified by the so-called Key Science Projects, KSPs) is the cosmic magnetism. Members of the Magnetism KSP (MKSP) use LOFAR as a tool to measure the non-thermal radio emission (which signifies the existence of the magnetic fields) and study a wide range of astronomical sources from pulsars to galaxies, galaxy groups, clusters and the large-scale structure. The planned meeting will be a chance to show the newest results achieved, discuss the methods of data reduction and analysis, and prepare strategies for future observations: not only with LOFAR, but also with other instruments, that can be used to trace the magnetic fields in the Universe. Special attention will be given to the detection of polarization, a challenging task in which great progress has been made recently with the detection of polarization in about 100 radio galaxies. It is organised as a mixture of a science meeting (2 days), and a workshop (3 “busy days”). In the first part, new discoveries and methods of observations and data reduction will be presented and discussed. In the second part, participants will work on one, or more current technical issues connected to the LOFAR data processing, testing and improving the existing scripts.</p>

Relevance for RadioNet	<p>In principle, LOFAR is run by ASTRON and other European institutions that host international LOFAR stations and contribute to the RadioNet. The meeting is devoted to evaluating and discussing results that were achieved using this particular instrument, and serves as a possibility to share them among scientists from various countries: the MKSP lists more than 100 members, not only from Europe, but also from eg. Australia, and South Korea. Many of them are young scientists, PhD students and Post-Doc researchers. A major obstacle for such people are the travel costs, accommodation, and conference fees. With the help of the RadioNet support, we will be able to keep the fee at a very low level (possibly – waive it for some participants). This will certainly allow more people to come to the meeting: for them, this will be a unique chance to present their work, to get in touch with part of the community in the field of cosmic magnetism (and possibly find a new contract), and to become familiar with the newest discoveries and method used in low-frequency radio astronomy. Experienced researchers will meet young scientists, with whom they may work in the future. A great value for the international co-operation between various MKSP institutes will also be added, as a space for discussions and new projects will be added. This altogether will certainly help current and future users of this RadioNet facility and ultimately improve the quality of the research.</p>
Impact on RadioNet	<p>First and foremost, the meeting will certainly improve the communication between the people who use LOFAR, a RadioNet facility, to study the magnetic fields. The large community of the MKSP members is dispersed within institutes all over the world, and a chance to directly speak with other people involved onto the same project is very valuable. Another asset is the possibility to discuss new methods of data analysis; as mentioned before, LOFAR is an ever-changing system, with many improvements added “on the fly”, that increase the data quality – that need to be tested, before they can be given to the larger community. Actions undertaken during the busy days will allow to evaluate some of the newest issues connected to the data processing (eg. if the facet calibration can be applied to datasets with polarisation), which will be profitable for all the people who would like to use LOFAR. In addition, the science part of the conference will be a place where most current findings on low-frequency radio emission will be shown to the public. The LOFAR MKSP has had annual meetings since 2007 and a number of them have benefited from the support of RadioNet.</p>
Use of the RadioNet contribution	<p>We would like to use the RadioNet support for:</p> <ol style="list-style-type: none"> <li>1. <b>Reimbursing the cost of public transportation</b> in Krakow for the conference attendees: a one-week group-discounted ticket (QR-code sticker) for not more than 100 people costs <b>300 Euro</b></li> <li>2. <b>Supporting the accommodation</b> of experienced LOFAR scientists, who will provide excellent review talks, and can lead the data workshop: 250 Euros of hotel costs per person per week. We would like to support 5 lecturers, so the total cost is <b>1250 Euro</b>.</li> <li>3. <b>Conference catering</b> including 2 coffee breaks per day, and a lunch + coffee/tea/fruits available throughout the conference. The detailed cost is 4 Euros per each coffee break, 6 Euros per lunch, and app. 1 Euro daily for fruits etc. We did not include any special meals. Multiplied by the number of meals, and number of participants, the total cost is <b>3000 Euro</b>.</li> <li>4. <b>Supporting the accommodation</b> of young scientists: we can place them in the student’s dormitories of our own University. The cost per person per week is 125 Euros. We would like to support 10 students (also, their fee will be waived), so the total cost is <b>1250 Euro</b>.</li> </ol> <p><b>The total contribution of the RadioNet funding we ask for is 5800 Euro.</b></p>
Ethics	<p>The organisers of the meeting stand at the point that any discrimination of people regarding their gender, race, sexual orientation, religion, age or personal views and opinions should not take place during the organised conference. Talk and poster space will be assigned on the basis of time and presenting space opportunity, and the scientific record and relevance of the proposed contributions. Anyone using inappropriate language (especially utilising hate speech), or making inappropriate notices (even if introduced as humorous references) will be notified by the members of the organising committee, and, based on the severity of offence and the will to co-operate and redeem him- or herself, might be asked to revert contribution, or in the most serious case, will be expelled from the meeting.</p> <p>Also, the travel costs' reimbursement and fee reduction/waiving will be granted with the assumption of keeping the proper balance between the people chosen for the support.</p>