



Report from the event supported by RadioNet

TITLE	<i>61ST MEETING OF CRAF, THE EXPERT COMMITTEE ON RADIO ASTRONOMY FREQUENCIES OF THE EUROPEAN SCIENCE FOUNDATION</i>
DATE:	<i>13-15 JUNE 2018</i>
LOCATION:	<i>BUDAPEST AND BERCEL, HUNGARY</i>
MEETING WEBPAGE:	<i>https://www.craf.eu/annual-craf-meeting-in-budapest/</i>
HOST INSTITUTE:	<i>EÖTVÖS LORÁND UNIVERSITY, BUDAPEST (ELTE)</i>
RADIONET BENEFICIARY / NO:	<i>NWOI-ASTRON / 02</i>

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Report:

1 SUMMARY

The 61st plenary face-to-face meeting of CRAF, the Expert Committee on Radio Astronomy Frequencies of the European Science Foundation was held from 13 to 15 June 2018 in Budapest and Bercel, Hungary. At this meeting, experts in the field of protection of radio frequencies used by the European radio astronomical scientific community met to discuss their common strategy in achieving the mission of CRAF, which includes "to keep the frequency bands for radio astronomical observations free from interference". It was not a scientific meeting in the customary sense, but it perfectly fits in the description of Task 2 of Work package 4 of the RadioNet program.

As an organisation, CRAF is formally accredited to represent the interests of the Radio Astronomy Service in matters of frequency protection at international fora, specifically at a European level at the CEPT (Conference of European Post and Telecommunication agencies; 48 countries) and at a global level at the ITU (International Telecommunication Union). The individual expert members of CRAF participate in meetings of their national spectrum agencies. This link between international and national activities is crucial for CRAF's activities - at international meetings, national administrations (who have right to vote, if required) support us and at a national level it is important to show that the international radio astronomy community has a common strategy.

CRAF has representatives from all European countries in which radio telescopes are being operated, plus South Africa, and of a few other countries as well. Also represented on CRAF are a number of international organisations: ESA, IRAM, IVS and SKAO. This meeting was attended by 22 representatives from 15 different countries and three organisations.

CRAF welcomed a new representative from The Netherlands.

CRAF employs a full-time Frequency Manager, and is financed at present by the annual contributions of ten institutional Members (observatories, national scientific academies and funding agencies).

At the meeting, the expert members gave reports on the RFI situation in their observatories and their interactions with their national spectrum authorities, the CRAF Frequency Manager reported on her activities of the last year, on issues of interest to the Radio Astronomy Service that are currently being discussed at CEPT and/or ITU, presented the plans on a CRAF attendance and position at international meetings where we need to be represented. A special attention was on the CRAF positions on relevant Agenda Items for the 2019 World Radiocommunication Conference (WRC-19) of the ITU. Work distribution among CRAF members was also discussed, as well as their participation in meetings.

Ideas to make CRAF more effective were discussed, like for instance organizing fixed-basis seminars within the radio astronomical institutes on the hot topics from spectrum management. The Stakeholder Forum made recommendations on a CRAF management/coordination team.

CRAF represents all radio telescopes in Europe in matters of radio frequency protection, which is to the obvious benefit of the entire RadioNet community.

On the CRAF website, there is a news item under <https://www.craf.eu/category/craf-meetings/> but the input and output documents are not publicly accessible, as they concern internal CRAF strategies for the protection of radio astronomy frequencies.

2 AGENDA OF THE EVENT

Presenter:
Thomasson - CRAF chairman

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13 June 2018, ELTE Budapest

1. Introduction and welcome by Prof. Dr. Imre M. Jánosi as Vice-Dean of ELTE Faculty of Science
2. Opening of the meeting (THOMASSON)
 - 2.1. Adoption of the agenda
3. Status of action items (THOMASSON, HEZAREH)
4. Evaluation of Meeting Minutes of the 31 October 2017 CRAF web-meeting and CRAF Update Telecon (25 April 2018) (THOMASSON)
5. Communications concerning CRAF (THOMASSON)
 - 5.1. CRAF budget (2017, 2018 & 2019)
 - 5.2. RadioNet H2020 (LINDQVIST)
 - 5.3. Appointment of new CRAF Chairman & vice-Chairman
6. CRAF Frequency Manager report (HEZAREH)
7. Upcoming CEPT/ITU meetings of interest to CRAF and CRAF attendance (all)
8. Status of WRC-19 Agenda Items and position of CRAF (HEZAREH)
9. CRAF Newsletter (THOMASSON)
10. Terms of Reference of the CRAF Stakeholder Forum

14 June 2018, ELTE Budapest

11. Improving work distribution within CRAF (WINKEL)
12. Start on Interference problems in Europe (all) (Continue on Friday)
Funders Circle working lunch [closed]
13. 2nd meeting of the Stakeholder Forum (chaired by VERMEULEN)
 - 13.1. discussing the Terms of Reference and future management structure
 - 13.2. review and approval of the financial budget by the Stakeholders Forum

15 June 2018, Full-day visit to Bercel Castle

14. BEST – a multi-purpose radio research station initiative (TÓTH)
15. Continue Observatory reports on Interference problems in Europe (all)
16. Discussion of the frequency manager's report (THOMASSON)
 - 16.1. Evaluation of the report
17. Conclusion of the CRAF meeting (THOMASSON)
 - 17.1. Date and location of next meeting
18. End of the meeting

3 PARTICIPANTS

The following 20 CRAF expert members took part in the meeting:

Pietro Bolli (Istituto di Radioastronomia I.N.A.F., Italy), Frederico Di Vruno (SKAO, UK), Hayo Hase (International VLBI Service for Geodesy and Astrometry (IVS)), Talayeh Hezareh (Max-Planck Institut für Radioastronomie, Germany), Karel Jirička (Ondrejov Astronomical Observatory, Czech Republic), Michael Lindqvist (Onsala Space Observatory, Sweden), José Antonio López Pérez (Observatorio Astronomico Nacional IGN, Spain), Joe McCauley (School of Physics, Trinity College, Ireland), Marat Mignaliev (Special Astrophysical Observatory Nizhnij Arkhyz, Russian Federation), Christian Monstein (Institute of Astronomy, ETH Zentrum, Switzerland), Vincent Piétu (Institut de Radio Astronomie Millimétrique (IRAM), France), Antonios Polatidis (ASTRON/NWO-I, The Netherlands), Serge Yerin (National Academy of Sciences, Ukraine), Gie Han Tan (ESO, Germany), Ivan Thomas (Station de Radioastronomie de Nançay, France), Peter Thomasson (University of Manchester, Jodrell Bank Observatory, UK), Vincenza Tornatore (Politecnico di Milano, Italy), L. Viktor Tóth (Eötvös Loránd University Budapest, Hungary), Wim van Driel (Observatoire de Paris, France) and Benjamin Winkel (Max-Planck Institut für Radio Astronomie, Germany) were present for all 3 days.

They represented 16 different countries and 3 international institutions, 3 of them are young researchers, three are female, and 6 of them received RadioNet support (see under "RadioNet financial contribution").

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The six directors, or their representatives, who participated on the 14 June meeting day came from six different countries, none of them are young researchers, one is female, and none of them received RadioNet support.

The six directors of CRAF Member Institutions who attended the closed Funders Circle meeting and the 2nd meeting of the Stakeholder Forum (on Thursday June 14) are:

France	Stéphane Corbel	CNRS-INSU
Germany	Kramer, Michael	MPIfR
Italy	Tiziana Venturi	IRA INAF - <i>through Skype</i>
Netherlands	René Vermeulen	ASTRON
Sweden	John Conway	Onsala
UK	Simon Garrington	STFC

Further, Valdis Avotins (Latvia, VIRAC) attended only the Stakeholder Forum on the second day (June 14) and Taurio Ritva (Academy of Finland) was online connected only on June 14 from 14:00. She agreed on the main points discussed in those few hours.

Also participating were the CRAF Frequency Manager, Talayah Hezareh (Germany) and, for the meeting with the directors, the Executive Director of the ESF, Jean-Claude Worms.



Conference picture: the CRAF expert members in front of the venue of the meeting, the physics and astronomy building of the faculty of sciences of the Eötvös Loránd University.

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CRAF 61 Budapest List of participants

Name	arrival		departure		dinner	accomm	e-mail
	time	flight	time	flight			
Avotins, Valdis, DIR	06.13,		06.15,		YES	?	valdis.avotins@venta.lv
C Bolli, Pietro	06.12,17:00	FR8418	06.16,13:15	FR8417	YES,3	IBIS	pbolli@arcetri.inaf.it
Conway, John, DIR	06.13,				?		
Corbel, Stephane, DIR	06.13,				?		
Di Vruno, Federico	06.09,12:45		06.16,06:00		YES,3	AIRBNB	F.DiVruno@skatelescope.org
Garrington, Simon, DIR	06.13,				?		
Hase, Hayo	06.12,		06.16,		YES		hase@fs.wetzell.de
C Hezareh, Talayeh	06.12,12:45	LH1676	06.18,	LH1679	YES	GoldenStar	thezareh@mpifr-bonn.mpg.de
C Jiricka, Karel	06.12,		06.16,		No	IBIS	jiricka@asu.cas.cz
Kramer, Michael, DIR	06.14,				?		
C Lindqvist, Michael	06.12,15:45	LH1678	06.16,13:45	LH1677	YES	Gellért	michael.lindqvist@chalmers.se
C López Pérez, José Antonio	06.12,		06.16,		YES		ja.lopezperez@oan.es
C Pietu, Vincent	06.12,18:20	LH1344	06.16,13:15	EZY4344	YES	Gellért	pietu@iram.fr
McCauley, Joe	06.11,		06.18,		YES	other	PMCCULEY@tcd.ie
C Mignaliev, Marat	06.12,12:05	SU 2030	06.17,12:55	SU 2031	YES,2	?	mingaliev@gmail.com
C Monstein, Christian	06.12,		06.16,		YES	Gellért	monstein@astro.phys.ethz.ch
C Polatidis, Antonios	06.12,		06.16,		YES	IBIS	polatidis@astron.nl
Tan, Gie Han	06.12,15:45	LH1678	06.15,20:30	LH1681	YES	Gellért	ghtan@eso.org
C Thomas, Ivan	06.12,09:05	AF1394	06.16,17:15	AF1295	YES	BoulevardCity	ivan.thomas@obs-nancay.fr
C Thomasson, Peter	06.12,	BA874	06.16,	BA867	YES	IBIS	pt@jb.man.ac.uk
C Tornatore, Vincenza	06.12,10:00		06.15,20:05		YES	IBIS	vincenza.tornatore@polimi.it
C Tóth, L. Viktor, LOC	-		-		YES,2	-	l.v.toth@astro.elte.hu
C Yerin, Serge	06.12,14:20	W62474	06.16,14:50	W62473	No	IBIS	yerin.serge@gmail.com
C van Driel, Wim	06.12,09:05	AF1394	06.16,17:15	AF1295	YES	IBIS	wim.vandriel@obspm.fr
Vermeulen, Rene, DIR	06.14,				YES,2		rvermeulen@astron.nl
C Winkel, Benjamin	06.12,19:50	EW0788	06.15,20:25	EW0789	YES	IBIS	bwinkel@mpifr.de

C = CRAF Member; DIR = Director of Institute; 'Blank' = Observer;

Also note that a representative of the Director of the Finland Observatory 'dialled in'.

Acting CRAF Chairman: *Peter Thomasson*

Figure 1. Attendees list of the 61st CRAF meeting

3.1 RADIOnET NEWSLETTER

4 RADIOnET FINANCIAL CONTRIBUTION

For the present meeting, a total of 3600 EUR of RadioNet support was requested under WP 4.2 for the travel expenses of six participants: Pietro Bolli (Italy), Karel Jirička (Czech Republic), Joe McCauley (Ireland), Marat Mingaliev (Russia), Vincenza Tornatore (Italy), and Serge Yerin (Ukraine), furthermore 850 EUR for the organisation of the meeting.

5 PUBLICATIONS

In the Minutes of the meeting RadioNet support is acknowledged.

The Minutes will not be made publicly available, as they contain information on the CRAF strategy for the protection of radio astronomy frequency bands, which should not be shared with other spectrum users such as operators of satellite communication systems and mobile phone systems. However, a summary report will be available to all stakeholders and interested people.

The project leading to this publication has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730562 [RadioNet]

6 CONFIRMATION:

Following the Regulation (EU) 2016/679 - General Data Protection Regulation-, RadioNet is allowed to publish this report, incl. participants lists, statistic's details, pictures, etc.

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