Astro Space Center RadioAstron Newsletter Number 30 20 June 2016

## The RadioAstron extension and AO-4 open science program start in July 2016

We are happy to report that RadioAstron operations are extended by Roscosmos until the end of 2018.

The third year of the RadioAstron open science program AO-3 is coming to its end in July 2016. Astro Space Center and its russian and international partners have successfully performed science experiments within approved AO-3 projects (see the list of projects in the RadioAstron Newsletter No. 28).

Starting from July 2016, the RadioAstron mission will move into the fourth year of its open program, AO-4 observations will continue until June 2017. The fourth RadioAstron Announcement of Opportunity has invited proposals of the following two types: the "Key Science Program" (KSP) and "General Observing Time" (GOT). See for details the full set of announcement documents in http://www.asc.rssi.ru/radioastron/ao-4/ao4.html.

All proposal were evaluated by the RadioAstron Program Evaluation Committee (RPEC) which was appointed by the RadioAstron International Science Council (RISC). Results of the evaluation were approved by the RadioAstron project director Nikolai Kardashev. RPEC members for AO-4 are Jason Hessels (U. Amsterdam, the Netherlands), David Jauncey (CSIRO, Australia), Matthew Lister (Purdue U., USA), Mikhail Popov (ASC Lebedev, Russia), Richard Porcas (chair, MPIfR, Germany), Wouter Vlemmings (Chalmers U., Sweden). Below we list 11 accepted projects which have requested observations with RadioAstron during the AO-4 period in their submission order:

• GOT: "Mapping and monitoring of cores of H<sub>2</sub>O masers with ultimate angular resolution", PIs: Hiroshi Imai (Kagoshima U., Japan), Alexey Alakoz (ASC Lebedev, Russia);

• GOT: "Angular diameters of pulsar scattering disks and the distribution of interstellar plasma fluctuations", PI: Mikhail Popov (ASC Lebedev, Russia);

• GOT: "Second-epoch Space VLBI visit into core-jet laboratories in the distant Universe (continued)", PI: Leonid Gurvits (JIVE and TU Delft, the Netherlands);

• GOT: "The nuclear structure of 3C84 with Space VLBI – II epoch", PI: Gabriele Giovannini (Bologona U. and INAF, Italy);

 $\bullet$  GOT: "H<sub>2</sub>O megamaser sources at high resolution", PI: Willem Baan (ASTRON, the Netherlans; ShAO, China).

• KSP: "Probing the innermost regions of AGN jets and their magnetic fields", PI: Jose-Luis Gomez (IAA, Spain);

• KSP: "Monitoring of the brightest AGN cores with RadioAstron", PI: Yuri Kovalev (ASC Lebedev, Russia);

• GOT: "A milli-arcsecond gravitational lens in S5 B0615+820?", PI: Eduardo Ros (MPIfR, Germany; U. Valencia, Spain);

• GOT: "Resolving the Jet-Collimation Region of the NGC1052 Twin-Jet System", PI: Anne-Kathrin Baczko (MPIfR, Germany);

• KSP: "Gravitational redshift experiment with RadioAstron", PI: Valentin Rudenko (SAI MSU, Russia);

• GOT: "Joint Pulsar – AGN Ground-Space VLBI", PI: Vladimir Soglasnov (ASC Lebedev, Russia).

Among the approved projects, four got rank 'A' (the highest priority), three — rank 'B', and four — rank 'C'. A total of about 155 co-investigators represent 19 countries. The largest number of co-Is are from Russia, other countries with a high number of co-investigators are the USA, Germany, Spain, the Netherlands, Australia, Italy, etc.

## RadioAstron science results

We are happy to note the growing number of RadioAstron publications (http://www.asc.rssi. ru/radioastron/publications/publ.html) as well as many reports on science meetings including the recent "Dissecting the Universe" workshop in Bonn (https://events.mpifr-bonn. mpg.de/indico/event/4/timetable/) and "Blazars through Sharp Multi-Wavelength Eyes" in Malaga (http://jets2016.iaa.es/content/program).

On June 20-22, 2016, many colleagues gather in Moscow to celebrate the 100 years anniversary of Iosif Shklovsky at the Shklovsky-100 symposium (http://shklovsky100.asc.rssi.ru/index.php/en/programm).

```
Nikolai Kardashev (nkardash@asc.rssi.ru)
Yuri Kovalev (yyk@asc.rssi.ru)
```

The RadioAstron project is led by the Astro Space Center of the Lebedev Physical Institute of the Russian Academy of Sciences and the Lavochkin Scientific and Production Association under a contract with the Russian Federal Space Agency, in collaboration with partner organizations in Russia and other countries.

To subscribe or un-subscribe to the Newsletter, use: http://asc-lebedev.ru/index2.php?engdep=22