



# Report from the event supported by RadioNet

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**TITLE** *14TH EVN SYMPOSIUM & USERS MEETING*

**DATE:** *OCTOBER 8-11 2018*

**LOCATION:** *GRANADA, SPAIN*

**MEETING WEBPAGE:** *<http://evnsymp2018.iaa.es>*

**HOST INSTITUTE:** *INSTITUTO DE ASTROFÍSICA DE ANDALUCÍA-CSIC*

**RADIONET  
BENEFICIARY / NO:** *OSO / 7*

# Report:

## 1. SCIENTIFIC SUMMARY

The 14th European VLBI Network (EVN) Symposium and Users Meeting (<http://evnsymp2018.iaa.es/>) was hosted by the Instituto de Astrofísica de Andalucía-CSIC (IAA-CSIC) in Granada (Spain) on behalf of the EVN Consortium Board of Directors. The meeting took place on October 8-11, 2018 at the main auditorium of the Parque de las Ciencias of Granada, Spain, the science museum of the city.

This biennial meeting has a relevant impact on the RadioNet community, of which the EVN community represents a large fraction of it. The EVN Symposium is the main forum for discussion of the latest very long baseline interferometric scientific results and technical and technological developments within the EVN member countries. This makes the European VLBI Network an actively evolving consortium and adds the current capability to lead relevant state-of-the-art scientific and technological projects like those presented during the meeting (see below). At this 14<sup>th</sup> EVN Symposium there was also a chance for user input into the future Science Vision for the EVN.

Topics discussed include:

- Powerful AGN science
- Starburst galaxies, extragalactic masers, and supernovae
- Stellar evolution and stellar masers
- Transient sources and pulsars
- Astrometric, geodetic & space applications
- VLBI technology developments
- Users feedback
- Current and future VLBI facilities and international cooperation

Moreover, the meeting also focused on the role of EVN on:

- Very-high sensitivity VLBI with SKA
- Future multi-wavelength and multi-messenger astronomy including high angular-resolution astronomy at other wavelengths

Finally, as a parallel activity of the EVN Symposium, a CASA-VLBI tutorial with over 80 participants was organized by JIV-ERIC for the late afternoon of October 11th, 2018 on the premises of the IAA-CSIC.

We consider the 14th EVN Symposium a complete success from all perspectives. There were 171 registered participants, with more than 80 oral presentations (and a lot of pressure to obtain time for such contributed talks) that were distributed in 11 sessions, of which four of them had to be organized in parallel sessions (AGN/Stellar Evolution) for the first time in an EVN Symposium. Almost 80 posters were also presented during the Symposium.

Compared to previous Symposia, there were many more results presented on several new topics not touched before, especially with respect to transient sources, multi-messenger science and synergies with observations at other spectral bands. This implies that very long baseline interferometry, and in particular the EVN is starting to become more relevant in new scientific areas, and it is «modernizing» itself.

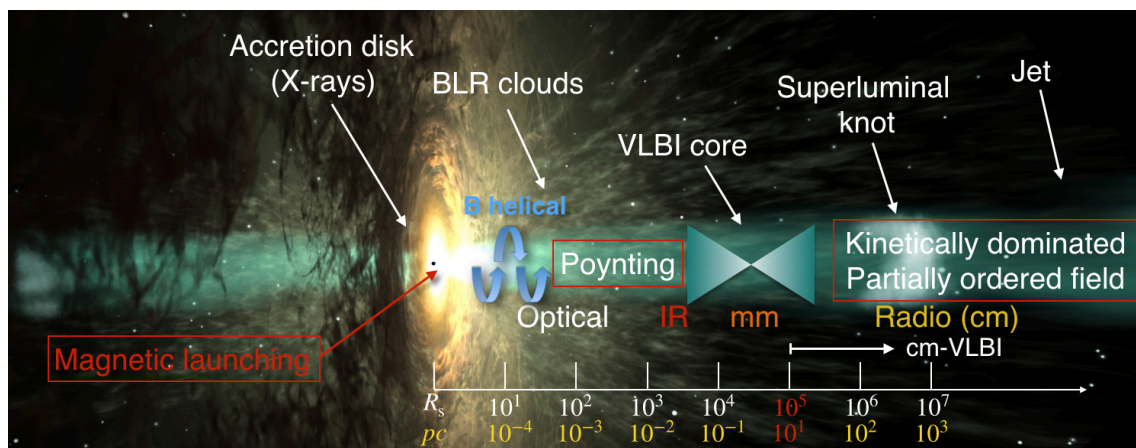


Fig. 1. Conceptual representation of the innermost structure of an AGN presented at the EVN Symposium during the review about AGN Science by J.-L. Gómez.

Remarkable scientific highlights of the results presented during the meeting include an impressive variety of both traditional and new results like:

- a) new ideas about the structure of the innermost relativistic jets in active galactic nuclei that are unveiled by space VLBI involving the EVN (as well as short millimeter VLBI, see Fig. 1),
- b) the relevant role of VLBI in disentangling star formation and AGN activity in future large AGN surveys with high sensitivity instruments (e.g. as SKA), and in covering the redshift space,
- c) the role of VLBI in inferring information on the circumnuclear environment of galaxies and AGN
- d) the prominence of new synergies and multi-wavelength projects beyond multimessenger science reflected by a large fraction of VLBI projects that involve other facilities than VLBI and studies closely related to results in other bands, like e.g. the electromagnetic counterparts of gravitational waves (e.g. Fig. 2), or cosmological studies
- e) the potential of near future wide field VLBI programs both for extragalactic population studies and to detect potential extraterrestrial artificial signals in SETI-like projects
- f) the plans for new and enhanced VLBI arrays, e.g. in East Asia.
- g) the current status of the Event Horizon Telescope and its potential for impressive new results on the supermassive black hole at the center of our Galaxy and other AGNs
- h) the plans for ultra-sensitive VLBI with SKA
- i) the third International Celestial Reference Frame and synergies between VLBI astrometric observations and those from Gaia
- j) the latest advances on VLBI spacecraft tracking and space VLBI results with RadioAstron,
- k) or the recent results on the location and kinematics of spiral arms on the Milky Way, and measurements of magnetic fields in young stellar objects and proto-stars

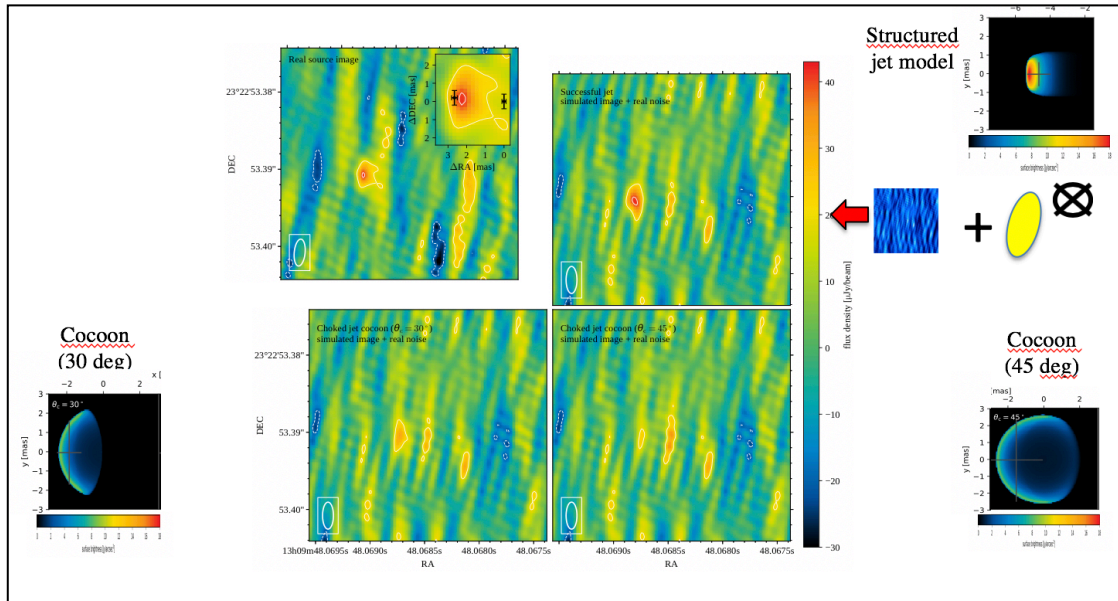


Fig. 2. Expected difference of VLBI images from two different radio emission models produced as a result of the Gravitational Wave event GW 170817A as seen by VLBI presented and the EVN Symposium during the Multi-Messenger and Multi Wavelength Session by G. Ghirlanda.

## 2. AGENDA OF THE EVENT

**Sunday, 7th**

20:00 Early registration and welcome cocktail at [\*Cuarto Real de Santo Domingo\*](#).

**Monday, 8th**

08:00 Registration opens

09:00 - 09:30 Opening by President of CSIC, Directors of IAA-CSIC and OAN-IGN, and Chair of EVN CBD at Auditorium

**Stellar Evolution Session 1** (Chair: F. Colomer, JIVE, Netherlands) at Auditorium

09:30 - 10:00 "[Studies of stellar evolution using masers](#)", A. Bartkiewicz, Torun Centre for Astronomy, Poland (Review)

10:00 - 10:15 "[Revealing magnetic fields towards massive protostars: a multi-wavelength approach using masers and dust](#)", D. Dall'Olio, Chalmers University - Onsala Space Observatory, Sweden

10:15 - 10:30 "[Magnetic field measurements around massive young stellar objects with the EVN](#)", G. Surcis, INAF- Osservatorio Astronomico di Cagliari, Italy

10:30 - 10:45 "[KaVA Large Proposal for High-Mass Star-Formation Studies with Multiple Masers](#)", T. Hirota, National Astronomical Observatory of Japan, Japan

10:45 - 11:00 "[High-mass star formation exposed with maser VLBI & thermal \(ALMA, JVLA\) observations](#)", L. Moscadelli, INAF - Osservatorio di Arcetri, Italy

11:00 - 11:30 Coffee break

**AGN Session 1** (Chair: D. Gabuzda) at Auditorium

11:30 - 12:00 "[The sharpest view of blazar jets through space and mm-VLBI observations](#)", J.L. Gómez, Instituto de Astrofísica de Andalucía-CSIC, Spain (Review)

- 12:00 - 12:15 ["Does Cygnus A harbor a binary black hole?"](#), U. Bach, Max-Planck-Institut für Radioastronomie, Germany
- 12:15 - 12:30 ["Moving cores in MOJAVE sample"](#), M. Lisakov, Max-Planck-Institut für Radioastronomie, Germany
- 12:30 - 12:45 ["RadioAstron survey completed: AGN cores at unprecedented angular resolution"](#), Y. Kovalev, Lebedev Physical Institute, Russia
- 12:45 - 13:00 ["Zooming in the jet formation site in AGN with RadioAstron"](#), T. Savolainen, Aalto University Metsahovi Radio Observatory, Finland
- 13:00 - 13:15 ["Radioastron observations of the jet launch region in 3C84"](#), G. Giovannini, IRA/INAF and Bologna University, Italy
- 13:15 - 13:30 ["Innermost region of the blazar S5 0716714 from RadioAstron polarimetric observations at 22 GHz"](#), E. Kravchenko, INAF Istituto di Radioastronomia, Italy
- 13:30 - 15:00 Lunch break
- Fast Transients, Neutron Stars & Pulsars** (Chair: J. Moldon) at Auditorium
- 15:00 - 15:30 ["The localization of a repeating Fast Radio Burst"](#), B. Marcote, JIVE, Netherlands (Review)
- 15:30 - 15:45 ["Recent VLBI Results on SN 1986J and the Possibility of FRBs Originating from Inside the Expanding Ejecta of Supernovae"](#), M. Bietenholz, Hartebeesthoek / SARAO, South Africa
- 15:45 - 16:00 ["Unravelling pulsar scattering through VLBI"](#), D. Simard, University of Toronto, Canada
- 16:00 - 16:15 ["Observing pulsars with ALMA: an unprecedented opportunity to explore the millimetre wavelength regime of pulsar emission"](#), P. Torné, Instituto de Radioastronomía Milimétrica, Spain
- 16:15 - 16:30 ["Imaging pulsar echoes at low frequencies"](#), O. Wucknitz, Max-Planck-Institut für Radioastronomie, Germany
- 16:30 - 16:45 ["Pulsar scintillometry on the Vela pulsar with the LBA"](#), F. Kirsten, Chalmers University of Technology, Onsala Space Observatory, Sweden
- 16:45 - 17:30 Coffee break
- 17:30 - 18:30 **EVN Users Meeting**, Chair: A. Polatidis, ASTRON, Netherlands (EVN PC Chair)  
["Welcome and updates from the EVN Program committee"](#), A. Polatidis, ASTRON, Netherlands  
["EVN User Support provided by JIVE"](#), Z. Paragi, JIVE, Netherlands  
["Updates from the JIVE Correlator"](#), B. Campbell, JIVE, Netherlands  
["Answer to questions from the community"](#), EVN officers and personnel from JIVE (moderator A. Polatidis, ASTRON, Netherlands)
- Social Activities**
- 19:30 EVN Symposium Football match at [Complejo Deportivo Núñez Blanca](#).

## Tuesday, 9th

- Starbursts, Low Luminosity AGN and Surveys** (Chair: A. Alberdi, Instituto de Astrofísica de Andalucía-CSIC, Spain) at Auditorium
- 09:00 - 09:30 ["Continuum Observations of Starburst Galaxies"](#), J. Conway, Onsala Space Obs - Chalmers University of Technology, Sweden (Review)
- 09:30 - 09:45 ["Star-formation and accretion in the local Universe - LeMMING's an e-MERLIN survey"](#), R. Beswick, The University of Manchester, UK

09:45 - 10:00	<b>"<a href="#">EVN imaging of the obscured nuclei of the LIRGI galaxies</a>", N. Ramírez-Olivencia, Instituto de Astrofísica de Andalucía-CSIC, Spain</b>	
10:00 - 10:15	<b>"<a href="#">Searching for intermediate-mass black holes in NGC3310</a>", M. Argo, University of Central Lancashire, UK</b>	
10:15 - 10:30	<b>"<a href="#">Studying galaxy evolution through cosmic time via the <math>\mu</math>Jy radio population: early results from eMERGE DR1</a>", T. Muxlow, The University of Manchester, UK</b>	
10:30 - 10:45	<b>"<a href="#">Extragalactic wide-field surveys using the European VLBI Network</a>", P. Barthel, Kapteyn Institute, Univ. of Groningen, Netherlands</b>	
10:45 - 11:00	<b>"<a href="#">SETI searches with the EVN</a>", M. Garrett, Jodrell Bank Centre for Astrophysics, University of Manchester, UK</b>	
11:00 - 11:30	<b>Coffee break</b>	
	<b>AGN Session 2 (Parallel) (Chair: S. Frey, Konkoly Observatory, MTA CSFK, Hungary) at Auditorium</b>	<b>Stellar Evolution Session 2 (Parallel) (Chair: A. Bartkiewicz) at Faraday Room</b>
11:30 - 11:45	<b>"<a href="#">Extreme physics at extreme baselines</a>", A. Lobanov, Max-Planck-Institut für Radioastronomie, Germany</b>	<b>"<a href="#">Multiepoch observation of periodic methanol maser in G107.2985.63</a>", M. Olech, Torun Centre for Astronomy, Nicolaus Copernicus University, Poland</b>
11:45 - 12:00	<b>"<a href="#">Polarimetric millimeter VLBI observations of 3C 84</a>", J.-Y. Kim, Max-Planck-Institut für Radioastronomie, Germany</b>	<b>"<a href="#">Parallaxes and proper motions of star-forming regions in the Sagittarius spiral arm</a>", K. Rygl, INAF-IRA, Italy</b>
12:00 - 12:15	<b>"<a href="#">Tracing AGN feedback in powerful radio galaxies with VLBI</a>", R. Schulz, ASTRON, Netherlands</b>	<b>"<a href="#">A study of the physical environments of evolved stars from the SiO and H<sub>2</sub>O masers</a>", Y. Yun, Korea Astronomy and Space Science Institute, South Korea</b>
12:15 - 12:30	<b>"<a href="#">VLBI and the faint radio AGN population</a>", N. Herrera-Ruiz, Ruhr University Bochum, Germany</b>	<b>"<a href="#">NGC6334I - Tracing the Gas Motion During A Contemporaneous Maser Flare Event</a>", J. Chibueze, SARAO/African VLBI Network, South Africa</b>
12:30 - 12:45	<b>"<a href="#">Three little radio galaxies in the early Universe</a>", K. Gabanyi, MTA-ELTE Extragalactic Astrophysics Research Group, Hungary</b>	<b>"<a href="#">Measuring Magnetic Fields from Water Masers in the Synchrotron Protostellar Jet in W3(H<sub>2</sub>O)</a>", C. Goddi, Radboud University Nijmegen, Netherlands</b>
12:45 - 13:00	<b>"<a href="#">Multi-frequency studies of the jet in the high-redshift quasar S5 0836+710</a>", L. Vega-García, Max-Planck-Institut für Radioastronomie, Germany</b>	<b>"<a href="#">COBRaS: The e-MERLIN 21cm Legacy Survey of Cygnus OB2</a>", D. Fenech, University of Cambridge, UK</b>
13:00 - 13:15	<b>"<a href="#">Gravitational lensing at milliarcsecond resolution with global VLBI observations</a>", C. Spingola, Kapteyn Astronomical Institute / ASTRON, Netherlands</b>	<b>"<a href="#">Investigating Black hole formation using VLBI</a>", P. Atri, International Centre for Radio Astronomy Research, India</b>
13:15 - 13:30	<b>"<a href="#">Insights into galaxy evolution with strong gravitational lensing</a>", H. Stacey, Kapteyn Astronomical Institute / ASTRON, Netherlands</b>	
13:45 - 15:00	<b>Lunch break</b>	

**Multi-Messenger and Multi-Wavelength** (Chair: Z. Paragi, JIVE, Netherlands) at Auditorium

- 15:00 - 15:30 **"Multi messenger astronomy"**, M. Branchesi, Gran Sasso Science Institute/INFN-LNGS, Italy (Review)
- 15:30 - 15:45 **"[The Synergy between VLBI and Gaia astrometry](#)"**, H. van Langevelde, JIVE/Leiden, Netherlands
- 15:45 - 16:00 **"[The radio view of Gravitational waves counterparts: GW/GRB170817](#)"**, G. Ghirlanda, INAF-Osservatorio Astronomico di Brera, Italy
- 16:00 - 16:15 **"[A dust-enshrouded tidal disruption event with a resolved radio jet in a galaxy merger](#)"**, M. Perez-Torres, Instituto de Astrofísica de Andalucía-CSIC, Spain
- 16:15 - 16:45 **"[Synergies between VLBI and high-resolution IR/optical interferometry](#)"**, J. C. Guirado, University of Valencia, Spain (Review)
- 16:45 - 17:15 **"[Synergies between CTA and VLBI](#)"**, M. Orienti, INAF-IRA Bologna, Italy (Review)
- 17:15 - 17:45 Coffee break
- 17:45 - 18:30 **EVN Vision Discussion**, T. Venturi, INAF, Istituto di Radioastronomia, Italy
- Social Activities
- 21:00 - 23:30 Night visit to the ***Alhambra Nazari Palaces***.

**Wednesday, 10th**

- 09:00 - 09:30 **"[Precise Astrometry today and tomorrow, with Next-generation Observatories](#)"**, M. Rioja, ICRAR/CSIRO (Australi); OAN (Spain) (Review, Plenary) at Auditorium

**AGN Session 3 (Parallel)** (Chair: B. W. Sohn, Korea Astronomy and Space Science Institute. South Korea) at Auditorium

**Astrometry (Parallel)** (Chair: P. Charlot, Laboratoire d'Astrophysique de Bordeaux, France) at Faraday Room

09:30 - 09:45

**"[Evolution of AGN jets from multi-epoch core-shift studies](#)"**, A. Plavin, Astro Space Center, Russia

**"[Where are you, Scutum? Tracking down a spiral arm with maser astrometry](#)"**, K. Immer, JIVE, Netherlands

09:45 - 10:00

**"[Exploring the non-linear motion of the parsec-scale jet of FSRQ 1633382](#)"**, H. Ro, Yonsei University / Korea Astronomy and Space Science Institute, South Korea

**"[Sensing the astrophysical influence within VLBI astrometric measurements of extragalactic radio-sources](#)"**, C. Gattano, Laboratoire d'Astrophysique de Bordeaux, France

10:00 - 10:15

**"[Gamma-ray emission in radio galaxies under the VLBI scope](#)"**, R. Angioni, Max-Planck-Institut für Radioastronomie, Germany

**"[Einstein Equivalence Principle test with RadioAstron: preliminary results](#)"**, D. Litvinov, SAI and ASC LPI, Russia

10:15 - 10:30

**"[Resolving the Radio-Loudest Quasar known to date at z~6](#)"**, E. Momjian, National Radio Astronomy Observatory, USA

**"[Tying multiple Radio Wavelength Celestial Frames to the Gaia Optical Frame](#)"**, C. Jacobs, JPL, USA

10:30 - 10:45

**"[Asymmetric jet production in NGC1052](#)"**, A.-K. Baczkó, Max-Planck-Institut für Radioastronomie, Germany

**"[Progress update of the VGOS radio telescope at Metsähovi Gedodetic Research Station](#)"**, G. Molera Calvés, Finnish Geospatial Research Institute, Finland

10:45 - 11:00	<a href="#">"Substantial winds from the accreting supermassive black hole in M87 revealed by Faraday rotation observations"</a> , J. Park, Seoul National University, South Korea	<a href="#">"VLBI and Doppler tracking of spacecraft for planetary atmospheric studies"</a> , T. Bocanegra, TUDelft/JIVE, Netherlands
11:00 - 11:30	<b>Coffee break</b>  <b>AGN Session 4 (Parallel)</b> (Chair: S. Pushkarev, Lebedev Physical Institute, Russia) <b>at Auditorium</b>	<b>Stellar Evolution Session 3 (Parallel)</b> (Chair: M. Lindqvist, Onsala Space Observatory, Sweden) <b>at Faraday Room</b>
11:30 - 11:45	<a href="#">"What the iMOGABA tells us about Gamma-ray bright AGNs"</a> , S.S. Lee, Korea Astronomy and Space Science Institute, South Korea	<a href="#">"Jets from massive protostars: clues on their role in the formation process from masers and high resolution radio / NIR imaging"</a> , F. Bacciotti, INAF - Osservatorio Astrofisico di Arcetri, Italy
11:45 - 12:00	<a href="#">"Toroidal magnetic fields and associated currents in AGN jets on kiloparsec scales"</a> , S. Knuettel, University College Cork, Ireland	<a href="#">"Detailed SiO proper motion analysis: slow net expansion and a small correlation with the magnetic field"</a> , A. Richards, JBCA, University of Manchester, UK
12:00 - 12:15	<a href="#">"Double nuclear structure discovered in 3C84"</a> , J. Oh, Seoul National University, South Korea	<a href="#">"Studies of galactic masers in RadioAstron space VLBI mission"</a> , A. Sobolev, Ural Federal University, Russia
12:15 - 12:30	<a href="#">"Radio structures in radio-quiet quasars with extremely powerful X-ray outflows"</a> , J. Yang, Onsala Space Observatory, Sweden	<a href="#">"Short-lived episodic outflow in a water fountain star"</a> , R. Burns, JIVE, Netherlands
12:30 - 12:45	<a href="#">"Global Millimeter VLBI Array Survey of Ultracompact Extragalactic Radio Sources at 86 GHz"</a> , D.G. Nair, Max-Planck-Institut für Radioastronomie, Germany	<a href="#">"3D Models of Maser Flares"</a> , M. Gray, University of Manchester, UK
12:45 - 13:00	<a href="#">"Parameter study of a semi-analytical relativistic MHD jet model in comparison with recent VLBI observations"</a> , C. Ceccobello, Chalmers Institute of Technology, Sweden	<a href="#">"Resolving discrepancy in the pPN OH231"</a> , J.-F. Desmurs, Observatorio Astronómico Nacional, Spain
13:00 - 13:15	<a href="#">"Use of VLBI/Gaia position offsets for AGN physics"</a> , Y. Kovalev, Lebedev Physical Institute, Russia	<a href="#">"Multi-epoch VLBI of a double maser super-burst"</a> , R. Burns, JIVE, Netherlands
13:15 - 13:30	<a href="#">"Expanding VLBI in East Asia and AGN science"</a> , K. Hada, Mizusawa VLBI Observatory, NAOJ, Japan	<a href="#">"Radio emission in ultracool dwarfs: the nearby triple system VHS 1256 – 1257"</a> , J. Climent, Universidad de Valencia, Spain
13:30 - 15:00	<b>Lunch break</b>	
	<b>Social Activities</b>	
13:30	Visit to <a href="#">IRAM 30m Telescope</a> for the 50 participants who registered. A bus will pickup participants from the conference venue. A lunch bag will be provided to have lunch at the mountain. An alternative city tour will take place for all remaining participants.	
18:30	Public talk: "Agujeros negros: los límites del espacio y el tiempo", E. Ros (at the conference venue, in Spanish)	
20:30	Conference dinner at <a href="#">Palacio de Santa Paula</a> .	



Thursday, 11th

**EHT and new VLBI Developments** (Chair: B. Campbell, JIVE, Netherlands) at Auditorium

- 09:00 - 09:30      "[Imaging Black Holes](#)", H. Falcke, Radboud University, Netherlands (Review)
- 09:30 - 09:45      "[Probabilistic fringe-fitting and source model comparison](#)", I. Natarajan, Rhodes University, South Africa
- 09:45 - 10:00      "[CASA on the fringe](#)", I. van Bemmelen, JIVE, Netherlands
- 10:00 - 10:15      "[RPICARD: A CASA-based Calibration Pipeline for VLBI Data](#)", M. Janssen, Radboud University, Netherlands
- 10:15 - 10:30      "[BRAND - the next generation receiver for VLBI](#)", W. Alef, Max-Planck-Institut für Radioastronomie, Germany
- 10:30 - 10:45      "[A development of compact triple band receiver for millimeter-wave radio astronomy](#)", S.-T. Han, Korea Astronomy and Space Science Institute, South Korea
- 10:45 - 11:00      "[Comparing remote atomic clocks via VLBI networks and fiber optic links: the LIFT/MetGeSp perspective](#)", R. Ricci, INAF-IRA, Italy
- 11:00 - 11:30      Coffee break

**High Sensitivity VLBI with SKA and other VLBI Arrays** (Chair: P. de Vicente, Observatorio Astronómico Nacional, Spain) at Auditorium

- 11:30 - 12:00      "[The science impact of high sensitivity VLBI with SKA](#)", C. García-Miró, SKA Organisation, UK (Review)
- 12:00 - 12:15      "[SKA-VLBI Key Science Programmes](#)", Z. Paragi, JIVE, Netherlands
- 12:15 - 12:30      "[Investigations on MultiView VLBI for SKA](#)", R. Dodson, ICRAR/UWA, Australia
- 12:30 - 12:45      "[Activities of VERA and East Asian VLBI network](#)", H. Kobayashi, National Astronomical Observatory of Japan, Japan
- 12:45 - 13:00      "[Status of the Very Long Baseline Array](#)", W. Brisken, National Radio Astronomy Observatory, USA
- 13:00 - 13:30      **EVN Symposium 2018 Summary**, T. Venturi, INAF, Istituto di Radioastronomia, Italy; and H. J. van Langevelde, JIVE/Leiden, The Netherlands
- 13:30 - 15:00      Lunch
- 15:30 - 18:30      **[CASA-VLBI tutorial](#)** organized by JIVE. The tutorial will take place at the main auditorium of the [IAA-CSIC](#).

### 3. PARTICIPANTS

Among the participants there were 171 attendees from 25 countries inside and outside Europe (see Fig), of which a significant fraction were young researchers and students, but only 21% of them were women. There were 12 invited reviewers, of which only 6 of them requested RadioNet funding support.

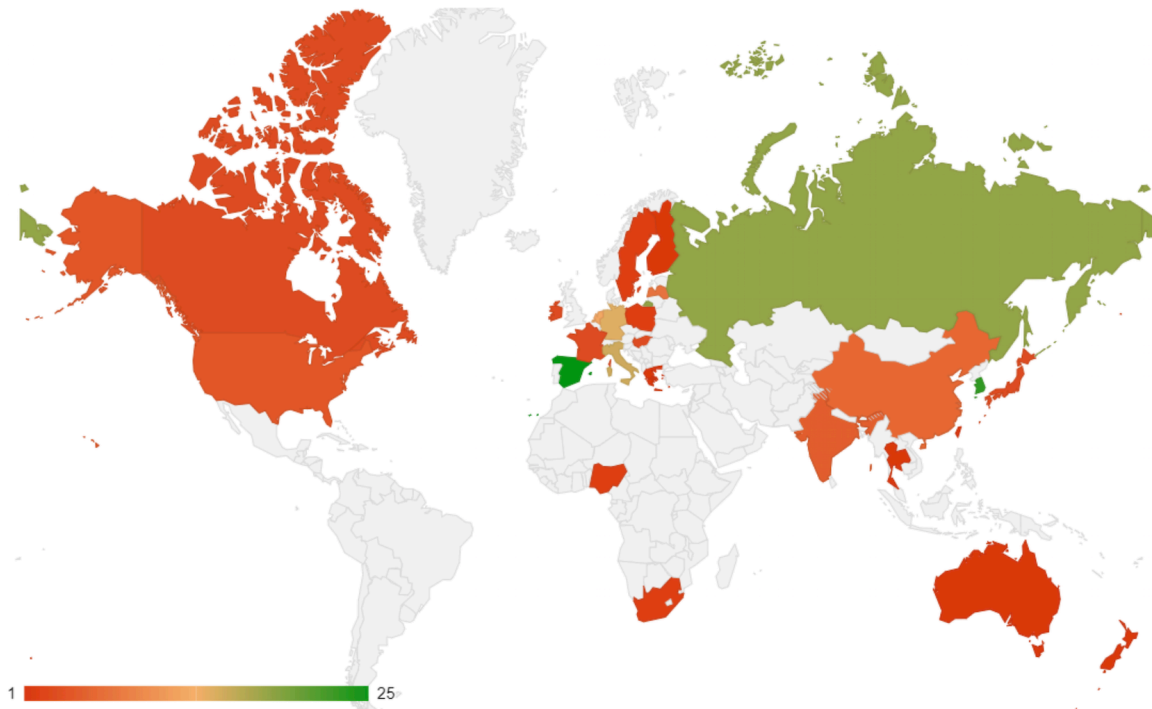


Fig. 3. Map of participation at the EVN Symposium 2018 by countries.

Here we attach the list of the 171 registered participants of the meeting, of which a large majority (but not all) appeared on the conference group picture (Fig. 4).



Fig. 4. Conference group picture.



#### **4. RADIONET FINANCIAL CONTRIBUTION**

The total amount of support offered by RadioNet was 10000€, of which the total amount of the proposed support for participants is 6970€ and 3000€ are requested to help supporting the expenses of the conference room and areas at the conference venue.

#### **5. PUBLICATIONS**

*The publication of the proceedings of the 14<sup>th</sup> EVN Symposium and Users Meeting is planned to be done in Proceedings of Science during the next months. The organizers will take good care to insert the acknowledgement of the RadioNet support by using the following formula:*

*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]*