

## EVN Symposium 2004

### The 7th European VLBI Network Symposium on VLBI Scientific Research & Technology

Venue.- Toledo (Hotel Beatriz), Spain. October 12- 15, 2004

#### SCIENTIFIC PROGRAM

Monday 11th.- Registration 18:00 –22:00 h

Tuesday 12th.- Registration + Contributions

09:00 –09:15 Welcome

Morning session: ( 9:15-11:00) **Galaxies 1** (R + 5)

Conductor: Franco Mantovani (IRA)

09:15 –09:45 Maria Marcha (Obs.Lisboa): "The global properties of all variety of AGN" (Review)

09:45 –10:00 Anne Pagels: "Millimetre VLBI Monitoring of AGN with sub-mas resolution"

10:00 –10:15 Makoto Miyoshi: "An Approach Detecting the Event Horizon of SgrA\*"

10:15 –10:30 Thomas Krichbaum: "Towards the event horizon - The vicinity of AGN at  $\mu$ as resolution"

10:30 –10:45 Hayley Bignall: "Interstellar Scintillation as a probe of microarcsecond-scale structure in quasars"

10:45 –11:00 Marco Bondi: "A detailed study of the nuclear region of Mkn 273"

(11:00 –11:30) Coffee break

(11:30-13:00) **Stars 1** (R + 4)

Conductor: Anita Richards (JBO)

11:30 –12:00 Javier Alcolea (OAN): "Circumstellar masers" (Review)

12:00 –12:15 Lisa Harvey-Smith: "A large-scale OH maser filament in W3(OH)"

12:15 –12:30 Anna Bartkiewicz: "Methanol masers in environments of three massive protostars"

12:30 –12:45 Ciriaco Goddi: "VLBI observations of water masers towards high-mass YSOs"

12:45 –13:00 Osamu Kameya: "H<sub>2</sub>O maser observations of W3OH using VERA"

(13:00 – 14:30) Lunch

Afternoon session: (14:30-16:15) **Instrumentation and techniques 1** (R + 5)

Conductor: Huib Jan van Langevelde (JIVE)

14:30 – 15:00 Walter Alef (MPIfR, DE): “A review of VLBI instrumentation” (Review)  
15:00 – 15:15 Bob Campbell: “Recent Results from the EVN MkIV Data Processor at JIVE”  
15:15 – 15:30 Arpad Szomoru: “From truck to optical fibre: the coming-of-age of eVLBI”  
15:30 – 15:45 Ralph Spencer: “Packet loss in high data rate internet data Transfer for eVLBI”  
15:45 – 16:00 Richard Dodson: “The Australian experience with the PC-EVN recorder”  
16:00 – 16:15 Alan Roy: “The water-vapour radiometer at Effelsberg”

(16:15 – 16:45) Coffee break

(16:45-18:20) **Galaxies 2** (I + 5)

Conductor: Thomas Krichbaum (MPIfR)

16:45 – 17:00 Eduardo Ros: “Extending and Exploring the 2cm Survey Sample”  
17:00 – 17:15 Richard Porcas: “Compact structure in FIRST survey sources”  
17:15 – 17:30 Matthias Kadler: “Combined VLBI- and X-ray Observations of Active Galactic Nuclei”  
17:30 - 17:50 Enrico Massaro (ULS-Roma): “Optical and Radio emission from BL Lac objects: long-term trends and structural changes” (Invited)  
17:50 – 18:05 Cormac Reynolds: “Intermediate scale structures in BL Lac objects”  
18:05 – 18:20 Neil Nagar: “Radio properties of nearby low luminosity AGNs”

(18:20-19:45) **Poster session 1**

Conductor: Eduardo Ros (MPIfR)

Posters to be reviewed:

Bach: “Spectral properties of the core and the VLBI-jets of Cygnus A”  
Blasco: “Extragalactic Scattering in Galaxy/Quasar Pairs”  
Brown: “Microquasar observations with MERLIN”  
Gawroski: “VSOP and VLBI observations of the CSS quasar 3C 309.1”  
Guirado: “Multi-wavelength differential astrometry of the S5 polar cap sample”  
Kamenov: “Multi-Frequency VLBI observations of GHz-Peaked Spectrum Sources”  
Mantovani: “EVN observations of the BL LAC object ON231”  
Mittal: “A VLBI study of the gravitational lens JVAS B0218+357”  
**Nagai: “Magnetic field and Faraday Rotation Measure structure in the Jet of 3C120” (Poster Prize!)**  
Oriente: “Spitzer 24 um imaging of Faint Radio Sources in the FLSv: a new radio-loud, Mid-IR /optically obscured population?”  
Pushkarev: “Quasi-simultaneous VLBI and RATAN-600 observations of active galactic nuclei”  
Rossetti: “VLBI Polarimetric Observation of 3C147”  
Shang: “VSOP Imaging of the Southern Blazar J1924-29 at 18cm”  
Tao An: “The simultaneous VLA observations of Sgr A\* from 90 to 0.7 cm”

Wednesday 13th.- Users meeting and visit to YEBES

09:00 Buses leave from Hotel Beatriz to YEBES

(10:30 – 11:00) Coffee break

11:00 - 13:00 **EVN Users meeting** at the Yebes new visitor's center  
Conductor: Patrick Charlot (Univ. Bordeaux; EVN-PC Chairman)

The EVN Users Meeting is a forum for discussion and exchange between the EVN users community and people that run the EVN. The meeting will consist of short introductory talks to open discussion on several topics of direct interest to EVN users. The following topics will be addressed:

1. Proposing and reviewing (P. Charlot)
2. Scheduling (R. Porcas)
3. What happens to the data at the correlator and after? (C. Reynolds)
4. Evolving correlator capabilities (H. van Langevelde)
5. Future software developments (A. Roy/H. van Langevelde)
6. The EVN by 2010 (W. Baan)

(13:30 – 15:00) Lunch

15:30 Group photograph

15:30 - 15:50 José Antonio López-Fernández: “The 40 meter radiotelescope. New trends for VLBI at CAY”.

15:50 – 17:30 **Visit to the Yebes observatory:** the 14-m radiotelescope, the laboratories, and the new 40-m radiotelescope.

17:30 – 18:00 Coffee break

18:00 – 19:00 OAN vs. “EVN-all-stars” football match

19:30 Buses return to Hotel Beatriz (estimated arrival 21:00 h)

## Thursday 14th.- Contributions

Morning session: ( 9:00-10:50) **Galaxies 3** (I + 6)

Conductor: Mike Garrett (JIVE)

- 09:00 –09:20 Daniele Dallacasa: “Polarization in CSS/GPS radio sources” (Invited)  
09:20 –09:35 Keiichi Asada: “A follow-up RM observation for helical magnetic field in 3C273”  
09:35 –09:50 LinLin Shang: “A Phase-reference Study of the CSS Radio Source 3C138 at 15 GHz”  
09:50 –10:05 Magdalena Kunert: “Looking for prematurely 'dying', young compact radio sources”  
10:05 –10:20 Xiaoyu Hong: “VLBI, MERLIN and VLA observations of NRAO530”  
10:20 –10:35 Gabriele Giovannini: “The two side parsec scale structure of the Low Luminosity Active Galactic nucleus in NGC 4278”  
10:35 –10:50 Bong Won Sohn: “86 GHz polarimetry of OVV1633+382 after a major mm flare”

(10:50 –11:20) Coffee break

(11:20-13:20) **Stars 2** (2I + 5)

Conductor: Valentín Bujarrabal (OAN/IGN)

- 11:20 –11:40 Malcolm Gray: “Masers: Observation and theory” (Invited)  
11:40 –11:55 Rebeca Soria-Ruiz: “First VLBI detection of a rare SiO isotopic substitution”  
11:55 –12:10 Anita Richards: “Hidden bipolarity in evolved star winds”  
12:10 –12:30 Maria Massi (MPIfR): “Radio-loud and radio-quiet X-ray binaries: LSI+61°303 in context” (Invited)  
12:30 –12:45 Zsolt Paragi: “Probing the polarization characteristics of SS433 on *mas* scales”  
12:45 –13:05 Miguel Angel Perez Torres (IAA): “VLBI observations of young type II supernovae” (Invited)  
13:05 –13:20 Antonios Polatidis: “Continuum EVN and MERLIN observations of ULIRGs”

(13:20 –15:00) Lunch

Afternoon session: (15:00-17:00) **Instrumentation and techniques 2** (2I + 5)

Conductor: Jesús Gómez-González (IGN)

- 15:00 –15:25 Rüdiger Haas (OSO, SE): “Analysis strategies and software for geodetic VLBI” (Invited)  
15:25 –15:45 Maria Rioja (OAN): "Application of precision astrometry to studies of massive YSOs" (Invited)  
15:45 –16:00 Wolfgang Schlüter: “IVS products for precise global reference frames”  
16:00 –16:15 Patrick Charlot: “Densification of the International Celestial Reference Frame: results of EVN+ observations”  
16:15 –16:30 Kazuya Hachisuka: “Distance to W3(OH) by VLBI annual parallax measurement”  
16:30 –16:45 Enno Middelberg: “VLBI detection of a source weaker than 100 mJy at 86 GHz”  
16:45 –17:00 Maria Nechaeva: “VLBI-experiments on research of solar wind plasma”

(17:00-17:30) Coffee break

(17:30-18:35) **Galaxies 4** (R + I + 1)

Conductor: Willem Baan (ASTRON)

17:30 –18:00 Raffaella Morganti (ASTRON): “Probing the nature of the ISM in AGN through HI absorption” (Review)

18:00 –18:15 Rob Beswick: “High resolution observations of the neutral hydrogen absorption”

18:15 –18:35 Hans-Rainer Klöckner: “Powerful extragalactic Hydroxyl emission” (Invited)

(18:35-19:30) **Poster session 2**

Conductor: Willem Baan (ASTRON)

Posters to be reviewed:

Argo: “OH in M82 - an update”

Etoka: “MERLIN 6 GHz maser emission from W3(OH)”

Desmurs: “mm-VLBA Observations of SiO masers: probing the close stellar environment of the PPN OH231.8+4.2”

Haba: “The H<sub>2</sub>O maser from the AGN in NGC1052”

Hirota: “Observations of H<sub>2</sub>O maser sources in Orion-Monoceros Molecular Clouds with VERA”

Honma: “Astrometry of W49N – OH43.8-0.1 H<sub>2</sub>O maser pair with VERA”

Kim: “Construction of the Korean VLBI Network (KVN)”

Lapsley: “VSI-E Software Suite”

Molotov: “First results of European VLBI radar observations of space objects”

Murata: “Spacecraft Design of VSOP-2”

Tuccari: “Cryogenic filters for RFI mitigation in Radioastronomy”

Tuccari: “E-LFVN - An internet based VLBI Network”

van Langevelde: “High output data rates with PCInt on the EVN MkIV data processor”

Whitney: “The Mark 5B VLBI Data System”

**20:30 - 23:00 Symposium dinner**

Friday 15th.- Contributions

Morning session: (9:00-11:55) **Galaxies 5** (I + 5 + 3)

Conductor: Makoto Inoue (NAOJ)

09:00 –09:20 Jose Luis Gómez (IAA): “Real vs. simulated relativistic jets” (Invited)

09:20 –09:35 An Tao: “Tracking the curved jet of PKS 1502+106”

09:35 –09:50 Tuomas Savolainen: “An extremely curved relativistic jet in PKS 2136+141”

09:50 –10:05 Marc Ribó: “The asymmetric compact jet of GRS 1915+105”

10:05 –10:20 Robert Laing: “Kinematics and dynamics of relativistic jets on large and small scales”

10:20 –10:35 Andrzej Marecki: “Signatures of restarted activity in core-dominated triples”

(10:35 –11:10) Coffee break

Conductor: Tom Muxlow (JBO)

11:10 – 11:25 Michael Garrett: “Discovering the microJy VLBI Sky via 'Full-Beam' Self-Calibration”

11:25 – 11:40 Sandor Frey: “The highest redshift radio quasar as seen with the EVN and the VLA”

11:40 – 11:55 Andy Biggs: “EVN observations of the lens system B0128+437”

(11:55-13:35) **Instrumentation and Techniques 3 (6)**

Conductor: Ralph Spencer (UMan)

11:55 – 12:10 Richard Strom: “What is the beam shape of an interferometer with unequal elements?”

12:10 – 12:25 Sergey Likhachev: “Multi-frequency Imaging in VLBI”

(12:25 – 12:35) Pause

12:35 – 12:50 Hideyuki Kobayashi: “VERA system”

12:50 – 13:05 Makoto Inoue: “East Asian VLBI Activities”

13:05 – 13:20 Hisashi Hirabayashi: “On Near-term Space-VLBI Mission VSOP-2”

13:20 – 13:35 Leonid Gurvits: “Precise VLBI tracking of planetary probes revisited”

13:35 – 14:00 Summary of the symposium (by Phil Diamond, JBO).

(14:00 - 16:00) Lunch

**16:00 - 20:00 Visit to Toledo**

20:00 Adjourn

## Posters

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Brown: "Microquasar observations with MERLIN"

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