

REPORT ON THE RADIONET3 NETWORKING ACTIVITY

TITLE: 3RD INTERNATIONAL VLBI TECHNOLOGY WORKSHOP

DATE: *10 -13 NOVEMBER, 2014*

LOCATION: *GRONINGEN AND DWINGELOO, THE NETHERLANDS*

MEETING WEBPAGE WWW.JIVE.NL/IVTW2014

HOST INSTITUTE: *JOINT INSTITUTE FOR VLBI IN EUROPE*

PARTICIPANTS NO: *93*

REPORT:

1. Agenda of the meeting

The agenda is attached to this document and can also be found here:
<http://www.jive.nl/ivtw2014/Documents/Programme.pdf>

2. Scientific Summary

The International VLBI Technology Workshops have evolved from the highly successful 10-year series of International e-VLBI workshops. The expanded scope of the technology workshops aims to encompass all areas of hardware or software development relevant to VLBI. In particular, though, development of global e-VLBI still features prominently and with it the close collaboration VLBI has developed over the years with national and international research network providers.

The third workshop in this series featured two days of "traditional" VLBI topics, such as receivers, digital backends, recording equipment, and e-transport. This was followed by one day focused on frequency and clock transfers over public networks and current and future data transport challenges. A number of expert speakers from related fields were invited for this part of the meeting.

The final day of the workshop was in the form of a half-day NREN - radio astronomy session, organized and sponsored by GÉANT, the pan-European research and education network.



3. Attendance list (incl. participant names, affiliation and country) signed by the participants and confirmed by the organizer

Find the signed list of participants attached or here: <http://www.jive.nl/ivtw2014/participants.php>

4. Financial Report / RadioNet3 contribution

RadioNet3 contributed a total of € 5000 to the workshop. Part of this amount was spent on travel support for three PdD students, one from New Zealand, and two from India. The rest was used to cover general expenses.

Registration fee		
waived	€ 200,00	Hariharan Krishnan & Mugundhan Vijayaraghavan

travel claims	€ 1.007,70	Hariharan Krishnan
	€ 861,42	Mugundhan Vijayaraghavan
	€ 816,63	Stuart Weston
	<u>€ 2.885,75</u>	

RadioNet claim	
travel	€ 2.885,75
local	€ 2.114,25
total	€ 5.000,00

RadioNet contribution	
TOTAL	€ 5.000,00

5. Conference Proceedings and Web page

Conference proceedings were not published, however, all presentations (minus 1) can be found on the conference wiki:

http://www.jive.nl/jivewiki/doku.php?id=various:t3rdivtw_presentations

Abstracts: <http://www.jive.nl/ivtw2014/abstracts.php>

1 Participants IWTW2014 9-13 nov 2014 11-09

http://www.jvnet.it/iwtw2014/participants2.php					
#	FirstName	LastName	Affiliation	Email	signature
83	Guido	Aben	AARNet	guido.aben@aarnet.edu.au	
35	Zulema	Abraham	AG: São Paulo University	zulema.abraham@ag.usp.br	<i>3 Abraham</i>
2	Ivan	Agudo	JIVE	agudo@jive.nl	
6	Alexander	Akcia-Danica	AVN China	alexander.akcia@avn.com	
9	Walter	Akt	MPFR	walter@mpfr-bonn.mpg.de	<i>W. Akt</i>
28	Anne	AMY-KLEIN	LPL-Université Paris 13-CNRS	amy@univ-paris13.fr	<i>Anny</i>
17	Andrey	Andriev	Aster Space Center (ASC LPI)	andriev@asc.res.ru	<i>Andriev</i>
107	Indrajit	Baner	Indian Institute of Astrophysics	indrajit@iia.res.in	
86	Pedro P.B.	Beckini	IG - University of São Paulo	pedro.beckini@ig.usp.br	<i>Pedro Beckini</i>
37	Christopher	Beaudouin	MIT Haystack Observatory	cbeaudouin@haystack.mit.edu	<i>Ch. Beaudouin</i>
59	Ilya	Bezrukov	IA RAS	ilbeza@gmail.com	
113	Wojciech	Bogacki	Poznan Supercomputing and Networking Center	wbogacki@man.poznan.pl	<i>Wojciech Bogacki</i>
105	Thomas	Bonhoure	Callisto	thomas.bonhoure@callisto-space.com	<i>Thomas Bonhoure</i>
87	Paul	Boven	JVL	boven@jve.nl	
57	Gabriele	Bruni	MPFR	bruni@mpfr-bonn.mpg.de	<i>Gabriele Bruni</i>
71	Rob	Campbell	JVL	campbell@jve.nl	<i>Rob Campbell</i>
60	Vincenzo	Capone	DANTE	vincenzo.capone@danter.it	<i>Vincenzo Capone</i>
38	Zhong	Chen	Shanghai Astronomical Observatory, CAS	chenzhong@shao.ac.cn	<i>Zhong Chen</i>
110	John	Chivers	DANTE	john.chivers@danter.net	
89	Giuseppe	Cimo	JVL	cimo@jve.nl	<i>Giuseppe Cimo</i>
25	Eric	Clerk	Jet Propulsion Laboratory	ec@jpl.nasa.gov	<i>Eric Clerk</i>
85	Tangui	Coucoum	DeCaSANT	tacou@ctu.dk	<i>Tangui Coucoum</i>
109	Jimmy	Cullen	Jodrell Bank Observatory, The University of Manchester	jimmy.cullen@manchester.ac.uk	<i>J. Cullen</i>
45	Adam	Daller	ASTRON	daller@astron.nl	<i>Adam Daller</i>
18	Deya	Dickson	Ericsson	g.ggs_h@yahoo.com	
111	Awedine	Djebri	physical	awedine92@gmail.com	
36	Steven	Durand	NRAD	sdurand@acc.nrad.edu	<i>Steven Durand</i>
76	Bob	Eldering	JIVE	eldering@jve.nl	<i>Bob Eldering</i>
80	Per Helene	Elsrud	Norwegian Mapping Authority	helsrud@kartverket.no	<i>P. Elsrud</i>
32	Anders	Enrich	OmniSys	ae@omnisis.co	
30	Yoshihiko	FUKUZAKI	Geospatial Information Authority of Japan	fukuzaki@gis.go.jp	<i>Yoshihiko Fukuzaki</i>
101	Vladyslav	Gelgen	URAN Ukraine	ga@uran.ua	
106	Samuel	Geuzen	Napel Astronomical Society	franzsaman@gmail.com	<i>Samuel Geuzen</i>
48	Guilherme	Gimenes de Castro	GRAMM/Phyast/UFPA University Mackenzie/Brazil	guilherme@gramm.mackenzie.br	
	Gertraud	Grosche	Physikalisch-Technische Bundesanstalt, Braunschweig, Germany (PTB)	grosche.g@ptb.de	
104	Roger	Hammargren	Onizka Space Observatory	roger.hammargren@chalmers.se	<i>Roger Hammargren</i>

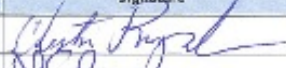
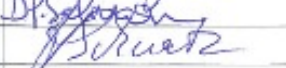
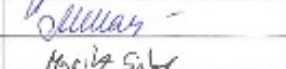
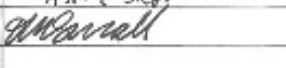
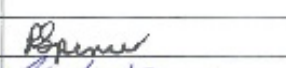


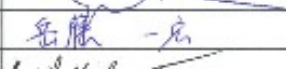
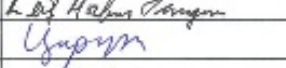
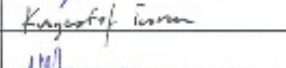
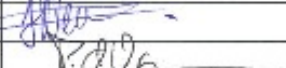

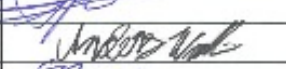
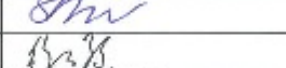
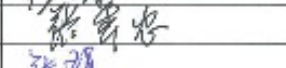

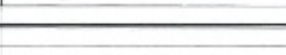










1 Participants (VTV) 2014-9-13 rev 2014-11-09

#	FirstName	LastName	Affiliation	Email	signature
70	Jonathan	Hargreaves	JIVE	hargreaves@jive.nl	J.E. Hargreaves
98	Craig	Heinselman	EISCAT Scientific Association	craig.heinselman@eiscat.se	Craig Heinselman
26	Leif	Heldner	Onsala Space Observatory	leif.heldner@chalmers.se	Leif Heldner
115	Peter	Hirrich	SURFnet	peter.hirrich@surfnet.nl	Peter Hirrich
103	Domenico	Iacovone	e-geos	domenico.iacovone@e-geos.it	Domenico Iacovone
21	Peter	Jankovics	Nikhef	peter.jankovics@nikhef.nl	Peter Jankovics
50	Du-Huang	Jia	KASI (Korea Astronomy and Space Science Institute)	dhja@kasi.ac.kr	Du-Huang Jia
65	Taehyun	Jung	KASI (Korea Astronomy and Space Science Institute)	thjung@kasi.ac.kr	Taehyun Jung
55	Yang-Woo	Kim	KASI (Korea Astronomy and Space Science Institute)	yuwan@kasi.ac.kr	Yang-Woo Kim
75	Aard	Kampman	JIVE	kampman@jive.nl	Aard Kampman
10	Mark	Kattenis	JIVE	kattenis@jive.nl	Mark Kattenis
93	Petr	Kivva	Metsähevi	petr.kivva@safo.fi	Petr Kivva
11	Jeroen	Koolmaij	VU University Amsterdam	j.c.koolmaij@vu.nl	Jeroen Koolmaij
	Yvonne	Kool	JIVE	kool@jive.nl	Yvonne Kool
89	Harisharan	Krishnan	Indian Institute of Astrophysics	krishnan@iap.res.in	Harisharan Krishnan
7	Michael	Lindqvist	Onsala Space Observatory	michael.lindqvist@chalmers.se	Michael Lindqvist
50	Peter	Madt	ASTRON	madt@astron.nl	Peter Madt
62	Ingrid	Mann	EISCAT Scientific Association	ingrid.mann@eiscat.se	Ingrid Mann
91	Andrea	Mella	INAF - Osservatorio Astronomico di Cagliari	amella@oa.cagliari.inaf.it	Andrea Mella
100	Olaf	Moroff	Forschungszentrum Jülich	o.moroff@fz-juelich.de	Olaf Moroff
65	Vladimir	Martin	IAA RAS	hamless.vxo@gmail.com	Vladimir Martin
99	Guilherme	Meloro Calves	JIVE	meloro@jive.nl	Guilherme Meloro Calves
79	Mauro	Nanni	INAF - IRA	nanni@ira.inaf.it	Mauro Nanni
52	Evgeny	Nesov	IAA RAS	en@mail.ru	Evgeny Nesov
40	Tomoki	Oyama	National Astronomical Observatory of Japan	Toyama@nao.ac.jp	Tomoki Oyama
60	Miroslav	Pantakov	Onsala Space Observatory	mirpan@chalmers.se	Miroslav Pantakov
6	Zsolt	Pozsgai	JIVE	zpozsgai@jive.nl	Zsolt Pozsgai
3	Chris	Phillips	CSIRO	chris.phillips@csiro.au	Chris Phillips
5	Tjeerd	Pinkert	Vrije Universiteit	t.pinkert@vu.nl	Tjeerd Pinkert
50	Sergei	Pogorebenko	JIVE	pogorebenko@jive.nl	Sergei Pogorebenko
42	Paul-Eric	Potté	CNRS/Obs Paris	paul-eric.potte@obspm.fr	Paul-Eric Potté
74	Jonathan	Quick	Hartebeesthoek Radio Astronomy Observatory	jqu@hartebeesthoek.ac.za	Jonathan Quick
48	Jan	Radi	CESNET	jan.radi@cesnet.cz	Jan Radi
95	Elizaveta	Rastorgueva-Fal	UTas	ef@utas.edu.au	Elizaveta Rastorgueva-Fal
91	Jonathan	Romney	NRAO	jromney@nrao.edu	Jonathan Romney
20	Helge	Rottmann	MPIR	rottmann@mpi-rbn.mpg.de	Helge Rottmann
10	Alexey	Rudnitskiy	Astro Space Center (ASC LP)	amas1021@gmail.com	Alexey Rudnitskiy

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1Participants (WTW2014 8-13 nov 2014-11-09)

#	FirstName	LastName	Affiliation	Email	signature
24	Chester	Ruszczyk	MIT Haystack Observatory	chester@haystack.mit.edu	
54	David	Salmon	Jeru (UK)	David.Salmon@jra.net	
52	Harold	Schnitz	Physikalisch-Technische Bundesanstalt	Harold.Schnitz@PTB.de	
64	Martina	Shatskaya	Astro Space Center (ASC LPI)	mshatsk@astro.spb.ru	
98	Martiz	Stober	Norwegian Mapping Authority	martiz.stober@kartoverket.no	
77	Des	Small	JIVE	small@jive.nl	
64	Min-Gyu	Song	KASI (Korea Astronomy and Space Science Institute)	mksong@kasi.ac.kr	
23	Ralph	Spencer	The University of Manchester	ralph.spencer@manchester.ac.uk	
79	Matteo	Stagni	INAF - IRA	mstagni@ira.und.it	
116	Hege	Stranden	LINNET	hege.stranden@uni-helm.no	
85	Igor	Sunkis	IA RAS	isunkis@yandex.ru	
1	Arpad	Szomoru	JIVE	szomoru@jive.nl	
27	Kazuhito	Takefuji	National Institute of Information and Communications	takefuji@nict.go.jp	
16	Leif Morten	Tangen	Norwegian Mapping Authority	leif.morten.tangen@kartoverket.no	
34	Alexey	Tesluk	Institute of Applied Astronomy RAS	alextesluk@gmail.com	
114	Krzysztof	Turza	PSNC	turza@man.oznet.pl	
4	Huib	van Langevelde	JIVE	langevelde@jive.nl	
69	Harro	Verkouter	JIVE	verkouter@jive.nl	
13	Pablo	Vicente	Observatorio de Yebes	pablo.devicento@oai.es	
92	Mugundhan	Vijayaraghavan	Indian Institute of Astrophysics	mugundhan@iia.res.in	
115	Andrey	Vylagzhnev	IPA Crop. / Ioffe Institute	avyl4@gmail.com	
31	Anders	Wallin	Centre for Metrology and Accreditation, Finland	anders.wallin@mkka.fi	
15	Stuart	Watson	Auckland University of Technology	swatson@aut.ac.nz	
51	Zhi-Jun	Xu	SHAO	xuzh@shao.ac.cn	
44	Xuzhong	Zhang	Shanghai Astronomical Observatory, CAS	xzhang@shao.ac.cn	
58	Juan	Zhang	Shanghai Astronomical Observatory, Chinese Academy	zhangjuang@shao.ac.cn	
46	Waimin	Zhang	Shanghai Astronomical Observatory, Chinese Academy	zhwm@shao.ac.cn	

3rd International VLBI Technology Workshop: Programme

Sunday November 9

18.00-20.30	Registration, icebreaker reception
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Monday November 10

8.30-9.00	Registration	
9.00-9.05	Arpad Szomoru	Opening workshop
9.05-9.20	Huib van Langevelde	Welcome
	<i>mmVLBI</i>	
9.20-9.40	Zulema Abraham	mm VLBI with ALMA
9.40-10.00	Helge Rottmann	The ALMA Phasing Project - Design and Status
10.00-10.20	Taehyun Jung	mm-VLBI phase correction with the KVN and its recent updates
	<i>VGOS</i>	
10.20-10.40	Christopher Beaudoin	Report on the new VGOS 12m radio telescope at Kokee Park Geophysical Observatory
10.40-11.10	Coffee break	
11.10-11.30	Ilya Bezrukov	Data recording system compatible with VGOS
11.30-11.50	Christopher Beaudoin	Status of GGAO and Westford VGOS Stations
11.50-12.10	Yoshihiro Fuzukaki	New receiving system for VGOS Station in Japan
12.10-12.30	Xiuzhong Zhang	The Development of Broadband VLBI Technologies in SHAO
12.30-14.00	Lunch	
14.00-14.20	Anders Emrich	VLBI2010 Front-end
	<i>Correlators</i>	
14.20-14.40	Aard Keimpema	Phasing up the EVN using the SFXC software correlator
14.40-15.00	Vladimir Mishin	VGOS GPU Based Software Correlator Design
15.00-15.20	Tomoaki Oyama	A progress report on the development and performance of OCTAVE-DAS and Correlator System
15.20-15.40	Jonathan Hargreaves	The JIVE UniBoard Correlator (JUC) firmware
15.40-16.10	Coffee break	
16.10-16.30	Harro Verkouter	Herding FPGAs - the UniBoard correlator control system
16.30-16.50	Zhijun Xu	The Development of Hardware Correlator in SHAO
16.50-17.10	Juan Zhang	The Software Correlator Status of Chinese VLBI Network
	<i>VEX2</i>	
17.10-17.30	Mark Kettenis	VEX2 Schedule Format Standard
17.30-18.00	VEX2 committee discussion	

Tuesday November 11

8.00	Bus leaves to Dwingeloo	
9.00-9.05	Arpad Szomoru	Opening, logistical information
9.05-9.20	Mike Garrett	Welcome
	<i>Front- and Backends</i>	
9.20-9.40	Evgeny Nosov	Current State of Russian VLBI Broadband Acquisition System
9.40-10.00	Eric Clark	The JPL DSCC VLBI Processor (DVP)
10.00-10.20	Chester Ruszczyk	Mark 6 - Present Status and Future Plans
10.20-10.40	Miroslav Pantaleev	Current development towards wide bandwidth front-ends for VLBI
10.40-11.10	Coffee break	
11.10-11.30	Kazuhiro Takefuji	The first light and fringe with broadband system at NICT
11.30-11.50	Walter Alef	DBBC3 Development Status
11.50-12.10	Walter Alef	A DBBC3 synthesis array
	<i>Space Science</i>	
12.10-12.30	Gabriele Bruni	Space VLBI: RadioAstron correlation and activities at MPIfR
12.30-12.50	Group photograph	
12.50-14.20	Lunch	
14.20-14.40	Andrey Andrianov	Radioastron primary data processing. Technology and results.
14.40-15.00	Weimin Zheng	CVN in Chang'e-3 lunar exploration mission
15.00-15.20	Sergei Pogrebenko	Analysis of factors influencing phase noise of VLBI telescopes
15.20-15.40	Alexey Rudnitskiy	"Millimetron" mission: space VLBI opportunities and capabilities
15.40-16.10	Coffee break	
16.10-16.30	Marina Shatskaya	Data Processing Center for Space VLBI Projects Implementation.
	<i>Global VLBI developments</i>	
16.30-16.50	Adam Deller	International LOFAR: VLBI at 140 MHz
16.50-17.10	Chris Phillips	VLBI developments in Australia
17.20	Bus leaves to Groningen	
19.00-	Workshop dinner	

Wednesday November 12

8.55-9.00	Arpad Szomoru	Opening, logistical information
	<i>Global VLBI developments</i>	
9.00-9.20	Jonathan Quick	VLBI in Africa
9.20-9.40	Matteo Stagni	The Italian VLBI network and the validation of SRT: tests and perspectives
9.40-10.00	Zhong Chen	e-VLBI progress in China
10.00-10.20	Stuart Weston	Expanding New Zealand VLBI Capability And The 30m Dish
10.20-10.40	Jonathan Romney	Re-Establishing Instrumental Compatibility for HSA and Global VLBI
10.40-11.10	Coffee break	
11.10-11.30	Zsolt Paragi	VLBI in the SKA era
	<i>Time and frequency transfer, data transport challenges</i>	
11.30-11.55	Peter Jansweijer	Implementing White Rabbit in your design
11.55-12.15	Anders Wallin	Time Transfer in a Wide Area White Rabbit Network
12.15-12.35	Jeroen Koelemeij	Methods for data, time and ultrastable frequency transfer through long-haul fiber-optic links
12.35-14.05	Lunch	
14.05-14.25	Paul Boven	Using VLBI to demonstrate long-haul fiber-optic frequency transfer.
14.25-14.50	Harald Schnatz	Towards international optical clock comparisons
14.50-15.15	Anne Amy-Klein	Progress towards a metrological fiber wide-area network
15.15-15.45	Coffee break	
15.45-16.10	Craig Heinselman	The EISCAT_3D phased-array radar for research into the arctic ionosphere
16.10-16.30	Peter Maat	The LOFAR Clock System
16.30-16.50	Alexey Tsaruk	Methods of transfer ultra-stable frequencies to radiotelescope.
16.50-17.10	Yan Grange	Network challenges for large interferometric arrays: Lofar experience and outlook for the SKA
17.10-17.30	Ralph Spencer	Phase Stable Interferometers at Jodrell Bank

Thursday November 13

	<i>EVN-NREN</i>	
9.00-9.05	Vincenzo Capone	Welcome
9.05-9.30	Vincenzo Capone	Current status and future plans of GÉANT infrastructure
9.30-9.55	Guido Aben	AARNet update
9.55-10.20	David Salmon	JANET update
10.20-10.45	Helge Stranden	VLBI station in Ny-Ålesund, Svalbard soon available through subsea fibreoptic connection
10.45-11.15	Coffee break	
11.15-11.40	Henrik Thostrup Jensen	Status for NORDUnet network and NSI service
11.40-12.05	Tangui Coulouarn	BoD: an update on GÉANT NSI compliant multi-domain guaranteed bandwidth service
12.05-12.30	Peter Hinrich	SURF Support4research
12.30-14.00	Lunch	