REPORT ON THE RADIONET3 NETWORKING ACTIVITY

TITLE: **NS2013: LATEST RESULTS FROM THE NEUTRON-STAR LABORATORY**

PROBING GRAVITATIONAL WAVES, ULTRA-DENSE MATTER, AND GARGANTUAN MAGNETIC FIELDS

DATE: *MAY 6-10, 2013* **TIME:** (WHOLE DAY)

LOCATION: *AMSTERDAM, THE NETHERLANDS*

MEETING WEBPAGE *www.sron.nl/ns2013*

HOST INSTITUTE: *SRON Netherlands Insitute for space research*

together with:

Anton Pannekoek Institute (API), Univ. of Amsterdam

ASTRON Netherlands Institute for Radio Astronomy

PARTICIPANTS NO: *116*

Project supported by the European Commission
Contract no.: 283393

REPORT:

1. Agenda and/or programme of the meeting

Please include the detailed agenda / programme of the event, including the title of the presentations and speakers (name/institutes/countries) when possible.

The program is attached in Appendix I.

2. Scientific Summary

Please provide a scientific summary of the meeting, including the initial goals and the most relevant results presented. You may also include some figures (with captions), which may be considered the highlights of the event. Please make this part no longer than two pages, plus figures (if it applies to the event). A few sentences on the participants, i.e. geographical distribution of participants, presence of young researchers and students, fraction of women, should also be given. A conference picture is welcome.

More than 45 years after the discovery of the first pulsar, neutron stars are now used as gravitational-wave detectors and astrophysical laboratories for studying the physics of ultra-high magnetic fields, gravity, and ultra-dense matter. We created a conference program highlighting the most recent results on radio (e.g. LOFAR, Parkes, GBT, Arecibo) and high-energy (e.g. Fermi) searches for new pulsars as well as cutting-edge results from studies of known neutron-star systems and their surroundings. We also aimed to capture the still expanding variety of neutron-star behavior, including talks on transient sources/events such as the RRATS and (giant) flares of magnetars. In addition, with LOFAR capabilities for monitoring the transient and pulsar sky becoming fully operational in 2012, we wanted to confront the early results with those of the high-energy window. In addition to discussing the newest results in neutron star research, we also aimed to foster new research initiatives and collaborations between the world's leading radio, X-ray and gamma-ray astronomers and theorists.

The conference included attendees from Europe (Netherlands, Germany, UK, France, Spain, Poland, Italy), North America (Canada, USA), South America (Chile), Asia (China, India), and Australia. 27 of 116 participants at the conference were women and 6/20 of the invited presentations were given by women. The conference participation roughly evenly spanned the range of PhD student to senior researcher. The invited talks also featured a roughly even mix of junior to senior staff members, with a roughly even distribution between observational, instrumental, modeling and theory presentations.

Judging by the positive feedback we received from conference participants, and the lively discussions during coffee breaks and lunch, we feel that the conference was a success and that the goals of disseminating the latest results as well as fostering new collaborations between radio and high-energy neutron star astronomers were met.

Some of the highlights of the conference include:

Ben Stappers (University of Manchester) presented a talk entitled "Extragalactic bursts" in which he presented searches for dispersed, millisecond-duration radio bursts as part of the High-Time-Resolution Universe survey with the Parkes radio telecope. This survey has discovered four bursts whose dispersion measures imply an extra-galactic distance and a still unknown origin (Thornton et al., Science, in press). These bursts confirm the initial discovery of an extra-galactic millisecond radio burst by Lorimer et al. 2007 (Science, 318, 777).

Adam Deller (ASTRON) presented a talk entitled “Refining the pulsar distance scale: results from PSRPI” in which he showed the growing number of precision parallax measurements towards radio pulsars derived from astrometric studies with the Very Long Baseline Array. These distances are vital input for a number of studies and models, including the Galactic free electron density model. Such measurements can also constrain the orbital parameters of binary millisecond pulsars, as shown in Figure 1.

The discovery and timing of a pulsar in a compact triple system was presented by Scott Ransom (NRAO,UVA) in his talk “Searching for pulsars in the likeliest places”. Near-daily observations of this unique system using the Westerbork Synthesis Radio Telescope has allowed the component masses and inclinations to be determined (Figure 2). This is a hierarchical triple system with an inner, 1.6-day binary that features a pulsar and white dwarf, which together are in a 327-day orbit around another white dwarf. This is a unique system for testing multi-body dynamics and gravitational theories (Ransom et al., in prep.).

Robert Archibald (McGill University) gave a talk entitled “An anti-glitch in a magnetar”, in which he presented the first observation of a sudden slow-down in a pulsar. Pulsar glitches are well-known, and occur both in rotation-powered pulsars as well as magnetically powered magnetars. However, until now, all observed glitches have resulted in a sudden spin-*up* of the neutron star. The observations of anomalous X-ray pulsar 1E 2259+586 displays the opposite effect, providing interesting theoretical fodder (Archibald et al. 2013, Nature, 497, 591).

Jason Hessels (ASTRON/University of Amsterdam) presented “LOTAAS: The LOFAR Tied-Array All-Sky Survey for pulsars and fast transients”, which is LOFAR’s high-time-resolution survey of the sky. Several other early LOFAR science results were presented by Anya Bilous (University of Nijmegen), Maura Pilia (ASTRON), Joeri van Leeuwen (ASTRON/University of Amsterdam), Tom Hassall (University of Southampton), and Vlad Kondratiev (ASTRON).

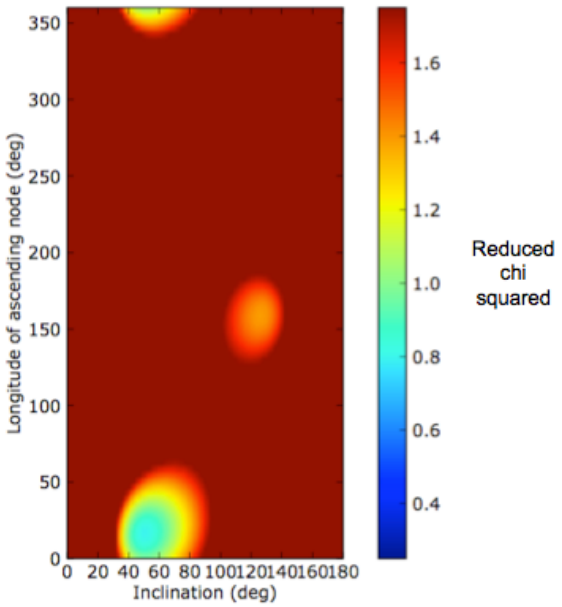

Figure 1: Constraints on the orbital inclination and longitude of the ascending node for the binary pulsar J1022+1001. These are derived through multi-epoch astrometric observations using the Very Long Baseline Array (Deller et al., in prep.).

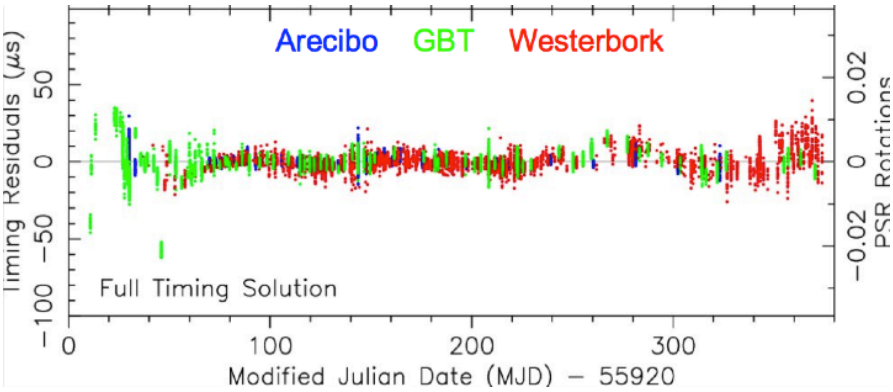

Figure 2: Timing residuals from observations of the pulsar triple system J0337+1715 (Ransom et al., in prep.). These near-daily measurements allow one to track small deviations in the pulse arrival times, which in turn can be used to precisely model the orbital parameters and other effects.

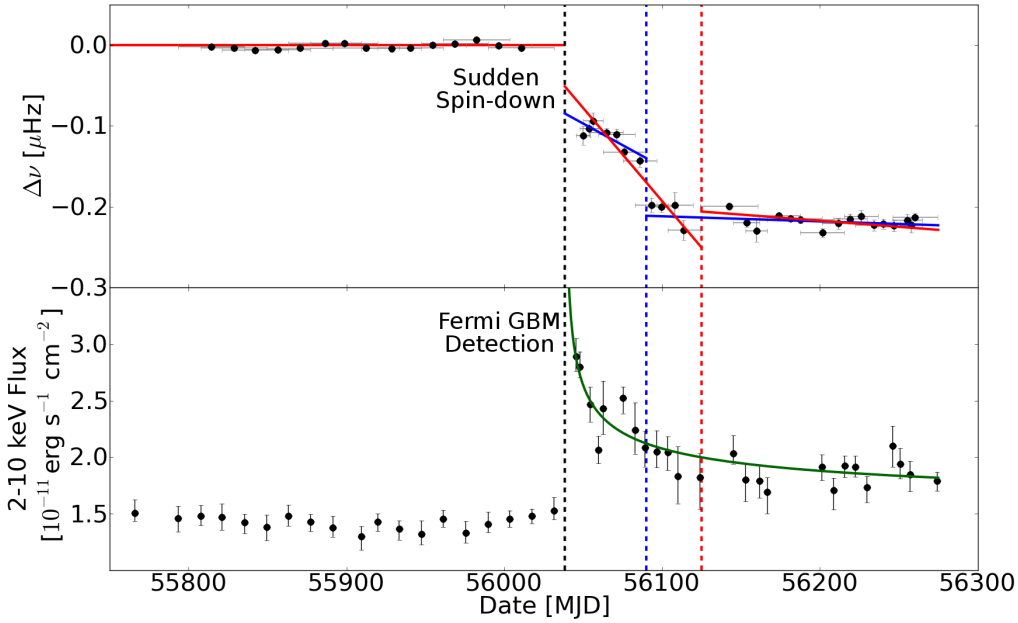

Figure 3: The first detection of an "anti-glitch" in a pulsar. The spin frequency of the anomalous X-ray pulsar 1E 2259+586 has been monitored for many years. Around MJD 56030 this spin frequency was seen to suddenly slow down, a uniquely observed event that remains to conclusively be explained theoretically (Archibald et al. 2013, Nature, 497, 591).

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

In case of heavy burden with collecting all participant signatures, an attendance list confirmed only by the organizer could be accepted.

The list of participants is attached in Appendix II.

4. Financial Report / RadioNet3 contribution

Please describe the RadioNet3 contribution to the event cost.
Please detail how the financial support from RadioNet was used, and provide a list of the participants (including their nationality) which received funding.

NS2013 was a 5-day international conference held at Felix Meritis in Amsterdam with a total cost of about € 90,000:

• cost of meeting/poster/entrance rooms and facilities (technician, audio, beamer display, poster boards, conference chairs, internet, etc.)	€ 33,000
• other organizational costs (poster, program book, badge, X-banner, conference bag, credit-card payment facility, etc.)	€ 5,000
• coffee/tea, lunches, welcome drink, conference dinner, social program	€ 37,000
• SRON/API/ASTRON manpower	€ 15,000

TOTAL COST	€ 90,000

The conference fee was € 350. Very important additional income was provided by RadioNet and others:

• Conference fees	€ 31,000
• SRON	€ 15,000
• KNAW	€ 8,000
• RadioNet	€ 7,000
• API/UvA	€ 5,000
• ASTRON	€ 5,000
• NOVA	€ 4,000
• SRON/API/ASTRON manpower	€ 15,000

TOTAL INCOME	€ 90,000

Usage of the financial support from RadioNet:

- The funding by RadioNet was partly used to waive the conference fee of € 350 for 10 participants (listed in Appendix III). There were only a few requests for support from within Europe, but many from outside.
- The other half of the financial support from RadioNet was used for funding part of the organizational costs listed above. A very important aspect of the symposium was the atmosphere of the meeting place, the Felix Meritis building in the center of Amsterdam, which has kept people really together for 5 days, all day long, including lunches. Without the financial support from RadioNet, the symposium could not have been held in Felix Meritis.

5. Conference Proceedings and Web page

Please provide any information concerning the publication of conference proceedings, or other public documentation, and the relevant web addresses.

There will be no conference proceedings. The oral presentations are available online at http://www.sron.nl/ns2013-program/oral-presentations

Presentations made at the meeting will be posted on the *RadioNet3* wiki of the Networking Activity when possible: http://www.radionet-eu.org/radionet3wiki/

Appendix I: Program

Monday May 6

08:30			**Start registration**
09:00 - 10:30			**NS populations and searches**
		Rens Waters	*Welcome by the general director of SRON*
I01	25+5	Duncan Lorimer	Searches and population studies of radio pulsars
I02	25+5	Scott Ransom	Searching for pulsars in the likeliest places
C01	15+5	Cherry Ng	Conducting the deepest all-sky pulsar survey ever: The All-Sky High Time Resolution Universe Survey
10:30 - 11:00			**Coffee**
11:00 - 12:30			**NS populations and searches**
C02	15+5	Thijs Coenen	The LOFAR pilot pulsar surveys
C03	15+5	Jason Hessels	LOTAAS: The LOFAR Tied-Array All-Sky Survey for pulsars and fast transients
C04	15+5	Vlad Kondratiev	LOFAR's view of millisecond pulsars
I03	25+5	Nanda Rea	Magnetars: the extreme activity of a small sample of pulsars
12:30 - 14:00			**Lunch**
14:00 - 15:30			**NS populations and searches**
I04	25+5	Paul Ray	A large population of gamma-ray millisecond pulsars revealed with Fermi
C05	15+5	Bhaswati Bhattacharyya	Search and timing of Fermi MSPs with the GMRT
C06	15+5	Wim Hermsen	The rotation-powered pulsar and magnetar populations at hard X-rays/soft gamma rays
C07	15+5	Peter den Hartog	A multi-wavelength study of Fermi-detected hard-X-ray pulsars
15:30 - 16:00			**Tea/coffee**
16:00 - 17:30			**NS populations and searches**
I05	25+5	Evan Keane	Fast Radio Transients
C08	15+5	Benjamin Stappers	Extragalactic bursts
C09	15+5	Holger Pletsch	First millisecond pulsar discovery via gamma-ray pulsations
C10	15+5	Andrew McCann	The status of the VERITAS pulsar program
17:30 - 18:30			**Welcome drinks at Felix Meritis**

Tuesday May 7

09:00 - 10:30			**Pulsar environments (PWN)**
I06	25+5	Elena Amato	Pulsar winds and nebulae
I07	25+5	Joseph Gelfand	X-ray emission of pulsar wind nebulae
I08	25+5	Marie-Hélène Grondin	Observations of pulsar wind nebulae in gamma-rays
10:30 - 11:00			**Coffee**
11:00 - 12:30			**Fundamental gravitational physics**
I09	25+5	Andrea Lommen	Pulsar timing arrays: No longer a blunt instrument for gravitational wave detection
I10	25+5	Cees Bassa	Creating the Large European Array for Pulsars
I11	25+5	Norbert Wex	Gravity tests with binary pulsars
12:30 - 14:00			**Lunch**
14:00 - 15:30			**Fundamental gravitational physics**
I12	25+5	Dimitrios Psaltis	GR tests and tests of other theories of gravity using NSs
C11	15+5	Paul Groot	Electromagnetic follow-up of gravitational wave events
C12	15+5	Jeremy Heyl	The structure of magnetic fields in neutron stars
C13	15+5	Sergei Grebenev	Supergiant Fast X-ray Transients discovered by INTEGRAL
15:30 - 16:00			**Tea/coffee**
16:00 - 17:30			**Theory of pulsations & observational constraints**
I13	25+5	Patrick Weltevrede	Observational constraints on theories of pulsations
C14	15+5	Maura Pilia	The low-frequency evolution of pulsar profiles with LOFAR
C15	15+5	Franz Kirsten	Pulsars in M15: Results of a proper motion measurement campaign
C16	15+5	Christo Venter	Constraining the properties of millisecond pulsars in globular clusters through multiwavelengths modelling
19:00 -22:30			**Conference dinner in Krasnapolsky - also celebrating the 65th birthday of Wim Hermsen!**

Wednesday May 8

09:00 - 10:30			**Theory of pulsations & observational constraints**
I14	25+5	Andrey Timokhin	Radio emission and state changes in the magnetosphere
C17	15+5	Tom Hassall	Differential frequency-dependent delay from the pulsar magnetosphere
C18	15+5	Joeri van Leeuwen	Observed sudden switches in pulsar magnetospheres
C19	15+5	Anna Bilous	PSR B0943+10 at the very low radio frequencies
10:30 - 11:00			**Coffee**

11:00 - 12:30			**Theory of pulsations & observational constraints**
I15	25+5	Kouichi Hirotani	High energy emission from rotation-powered pulsars
C20	15+5	Alice Harding	Exploring gamma-ray emission models using millisecond pulsars in the Second Fermi Pulsar Catalog
C21	15+5	Constantinos Kalapotharakos	Exploitation of pulsar magnetosphere solutions
C22	15+5	Matthew Kerr	The energy-dependent light curve evolution of gamma-ray pulsars
12:30 - 14:00			**Lunch**
14:00 - 15:30			**Excursion part 1:** **boat excursion "Golden Age"** Art-history guides will present Rembrandt's Amsterdam during a boat excursion over the canals of the historical center, starting at the Keizergracht, near Felix Meritis.
15:30 - 16:30			**Excursion part 2:** **walking tour of the city** After the boat excursion you are welcome to continue with a guided walking tour of the historical center, starting at the Waterlooplein where the boat excursion stops.

Thursday May 9

09:00 - 10:40			**Theory of pulsations & observational constraints**
C23	15+5	Isabelle Grenier	Confronting pulsar models with gamma-ray and radio observations
C24	15+5	Adam Deller	Refining the pulsar distance scale: results from PSRPI
C25	15+5	Danai Antonopoulou	Radio pulsar glitches: detectability, characterization methods and the implications for theoretical models
C26	15+5	Brynmor Haskell	What can we learn from glitches in radio pulsars and magnetars?
C27	15+5	Ali Alpar	Peculiar glitch of PSR J1119-6127
10:40 - 11:10			**Coffee**
11:10 - 12:40			**EoS + high B-field effects and magnetars**
I16	25+5	James Lattimer	Constraints on the mass-radius relation for neutron stars
I17	25+5	Paul Demorest	Latest observational constraints on the NS EoS
C28	15+5	William Newton	Inferring nuclear matter properties from observations of dynamical neutron star phenomena
12:40 - 14:10			**Lunch**
14:10 - 15:30			**EoS + high B-field effects and magnetars**

C29	15+5	Claudia Aguilera	Failure conditions of the elastic crust of neutron stars
C30	15+5	Joel Fridriksson	Crustal cooling in transient neutron star X-ray binaries - a case study: the super-Eddington transient XTE J1701-462
C31	15+5	Oliwia Madej	Measuring neutron star masses and radii in X-ray binaries using X-ray spectroscopy
C32	15+5	Jean in't Zand	Prospects for detecting absorption edges in thermonuclear bursts
15:30 - 16:00			**Tea/coffee**
16:00 - 17:30			**EoS + high B-field effects and magnetars**
I18	25+5	David Kaplan	High B-field effects around pulsars
C33	15+5	Daniela Huppenkothen	Understanding magnetar burst variability
C34	15+5	Joe Mitchell	Magnetic field evolution in neutron stars
C35	15+5	Robert Archibald	An anti-glitch in a magnetar

Friday May 10

09:00 - 10:30			**EoS + high B-field effects and magnetars**
I19	25+5	Andrei Beloborodov	Dynamic magnetospheres of neutron stars
C36	15+5	Romain Hascoet	Explaining hard X-ray emission from magnetars with a coronal outflow model
C37	15+5	Victoria Kaspi	Delayed spin-down rate variability following flux flares in magnetar 1E 1048.1-5937
C38	15+5	Hongjun An	NuSTAR observation of the magnetar 1E 1841-045
10:30 - 11:00			**Coffee**
11:00 - 12:30			**EoS + high B-field effects and magnetars**
I20	25+5	Maura McLaughlin	An infestation of RRATs
C39	15+5	Niccolò Bucciantini	The magnetar model for long and short GRBs
C40	15+5	Thijs van Putten	Models of hydrostatic magnetar atmospheres at high luminosities
C41	15+5	Caroline D'Angelo	Constraining emission in magnetar bursts from energy-dependent variability
12:30 - 14:00			**Lunch**
14:00 - 15:20			**Other**
C42	15+5	Sandro Mereghetti	Is there a magnetar wind nebula around Swift J1834.9-0846?
C43	15+5	Paul Moran	Optical polarimetry of the Inner Crab nebula and pulsar
C44	15+5	Alessandro Patruno	A new powerful observational diagnostic for the disk-magnetosphere interaction
C45	15+5	Victor Zabalza	Understanding the TeV lightcurve of PSR B1259-63/LS 2883
15:20			**End of the meeting**

Posters

Posters can be displayed from Monday morning until Friday at noon.

P01	Romain Artigue	Testing the rotating hot spot model using X-ray burst oscillations from 4U 1636-536
P02	Tullio Bagnoli	New clues about the long-time enigmatic Rapid Burster
P03	Guillaume Belanger	On detecting transients
P04	Mohsen Bigdeli	Ferromagnetic spin state and hot neutrino-trapped neutron star matter
P05	Silvano Bonazzola	Multipole structure of pulsar magnetosphere in vacuum
P06	Paul Brook	Are we seeing evidence of an asteroid encounter with a pulsar?
P07	Sarah Buchner	Vela glitch monitoring from HartRAO
P08	Peter Bult	A variability study of the accreting millisecond X-ray pulsar SAX J1808.4-3658.
P09	Pablo Cerdá-Durán	On the nature of quasi-periodic oscillations in SGRs
P10	Yu-Peng Chen	Type-I X-ray bursts reveal a fast co-evolving behavior of the corona in an X-ray binary
P11	Yuanjie Du	Annular gap model for multi-wavelength emission from pulsars
P12	Jaroslaw Dyks	Emission geometry of J0631+1036
P13	Paolo Esposito	A time-variable, phase-dependent emission line in the X-ray spectrum of the isolated neutron star in Puppis A
P14	Ekaterina Filippova	Variability of LMXB at large (comparable to orbital period) times scales
P15	Ulrich Geppert	Pulsar activity and crustal field evolution
P18	Wojciech Idec	Study of the optical and X-ray properties of the northwestern wisps in the Crab Nebula
P19	Andrei Igoshev	Magnetic field decay in pulsars
P20	Bülent Kiziltan	Probing globular clusters with pulsars
P21	Sushan Konar	The AMXP-MSRP connection
P22	Erik Kuulkers	Latest news from the Galactic bulge monitoring program
P23	Lin Lin	On the X-ray emission mechanisms of the persistent source and very low-fluence bursts of SGR J0501+4516
P24	Chandreyee Maitra	Latest results of pulse phase resolved spectroscopy of CRSFs in accretion powered pulsars & their implications
P25	Walid Majid	A multi-wavelength campaign to study giant pulses from the Crab pulsar
P26	George Melikidze	PSG model for Chameleon pulsar
P27	Joe Mitchell	Evolution of axially symmetric magnetic fields in neutron stars
P28	Dipanjan Mitra	High time resolution observations of pulsars
P29	Sergey Moiseenko	Formation of neutron star and gargantuan magnetic field in magnetorotational supernova explosion
P30	Fabrice Mottez	The magnetic wake of planets and small bodies in a pulsar wind
P31	Dipanjan Mukherjee	Magnetic field structure in accretion mounds on neutron star binaries and the effect on CRSF
P32	Devraj Pawar	RMS - energy relation in neutron star LMXBs
P33	Emily Petroff	Dispersion measure variations in a sample of 168 pulsars
P34	Marco Pierbattista	Light-curve modelling constraints on the obliquities and aspect angles of the Fermi pulsars
P35	Guojun Qiao	Radio and high-energy emission from normal and millisecond pulsars in the annular gap model
P36	Joanna Rankin	Drifting, Moding & Nulling in Pulsar B1918+19
P37	Joanna Rankin	Status of the Carousel Model for Pulsar B0809+74

P38	Nicolas Renault-Tinacci	Phase resolved spectroscopy of 16 MSPs
P39	Jayanta Roy	Astrometry of newly discovered MSPs with coherently dedispersed gating correlator and optimising coherent array using on-off gated image
P40	Celia Sanchez-Fernandez	The population of Galactic X-ray bursters as seen by JEM-X onboard INTEGRAL
P41	Nicola Sartore	A tale of a pulsar and its tail
P42	Sander ter Veen	FRATs: Searching for Fast Radio Transients and identifying them with the LOFAR time machine
P43	Shu Zhang	Type-I X-ray bursts as a probe of corona

Appendix II: Participants

Aguilera	Claudia	Pontificia Universidad Católica de Chile	Chile
Aharonian	Felix	DIAS/MPIK	Ireland
Alpar	Ali	Sabanci University	Turkey
Amato	Elena	INAF-Osservatorio Astrofisico di Arcetri	Italy
An	Hongjun	McGill University	Canada
Antonopoulou	Danai	Astronomical Institute 'Anton Pannekoek'	The Netherlands
Archibald	Robert	McGill	Canada
Artigue	Romain	IRAP	France
Bagnoli	Tullio	SRON	The Netherlands
Bassa	Cees	Jodrell Bank Centre for Astrophysics	United Kingdom
Belanger	Guillaume	ESAC	Spain
Beloborodov	Andrei	Columbia University	USA
Bhattacharyya	Bhaswati	National Centre for Radio Astrophysics	India
Bilous	Anna	Radboud University Nijmegen	The Netherlands
Bloemen	Hans	SRON	The Netherlands
Bonazzola	Silvano	Observatoire de Paris-Meudon	France
Brook	Paul	University of Oxford	England
Bucciantini	Niccolò	INAF Osservatorio di Arcetri	Italy
Buchner	Sarah	HartRAO	South Africa
Bult	Peter	Astronomical Institute 'Anton Pannekoek'	The Netherlands
Cerdá-Durán	Pablo	Universidad de Valencia	Spain
Chakrabarty	Deepto	MIT	USA
Chen	Yu-Peng	IHEP,CAS,China	China
Coenen	Thijs	Anton Pannekoek Instituut	The Netherlands
DAngelo	Caroline	University of Amsterdam	The Netherlands
Dekker	Vincent	Anton Pannekoek Institute, University of Amsterdam	The Netherlands
Deller	Adam	ASTRON	The Netherlands
Demorest	Paul	NRAO	USA
Du	Yuanjie	National Space Science Center, Chinese Academy of Sciences	China
Dyks	Jaroslaw	Copernicus Astronomical Center	Poland
Elenbaas	Chris	University of Amsterdam	The Netherlands
Esposito	Paolo	INAF-IASF Milano	Italy
Filippova	Ekaterina	ISDC, University of Geneva	Switzerland
Fridriksson	Joel	University of Amsterdam	The Netherlands
Gelfand	Joseph	NYU Abu Dhabi	USA
Geppert	Ulrich	DLR-Institute of Space Systems & Kepler Astronomical Institute	Germany
Grebenev	Sergei	Space Research Institute, Russian Academy of Sciences	Russia
Grenier	Isabelle	AIM, Service d"Astrophysique	France
Grondin	Marie-Hélène	Institut de Recherche en Astrophys. & Planétologie (IRAP)	France
Groot	Paul	Radboud University Nijmegen	The Netherlands
Harding	Alice	NASA Goddard Space Flight Center	USA
Hartog den	Peter	Stanford Univsersity HEPL/KIPAC	USA
Hascoet	Romain	Columbia University	US

Haskell	Brynmor	Albert Einstein Institute	Germany
Hassall	Tom	University of Southampton	UK
Heida	Marianne	SRON	Netherlands
Heise	John	SRON	The Netherlands
Herder den	Jan-Willem	SRON	The Netherlands
Hermsen	Wim	SRON Netherlands Institute for Space Research	Netherlands
Hessels	Jason	ASTRON/UvA	The Netherlands
Heuvel van den	Edward	Astronomy Univ. of Amsterdam	Netherlands
Heyl	Jeremy	UBC	Canada
Hirotani	Kouichi	ASIAA/TIARA	Taiwan
Huppenkothen	Daniela	API, Univ. of Amsterdam	The Netherlands
Igoshev	Andrei	Saint Petersburg State University	Russia
Jonker	Peter	SRON	The Netherlands
Jourdain	Elisabeth	IRAP	France
Kalapotharakos	Constantinos	University of Maryland CP / GSFC NASA	USA
Kaplan	David	University of Wisconsin, Milwaukee	USA
Kaspi	Victoria	McGill University	Canada
Keane	Evan	MPIfR Bonn/JBO Manchester	UK
Kerr	Matthew	Stanford University	USA
Kirsten	Franz	Max Planck Institut für Radioastronomie	Germany
Kiziltan	Bülent	Harvard University & MIT	USA
Klis van der	Michiel	API	Netherlands
Konar	Sushan	NCRA-TIFR	India
Kondratiev	Vlad	ASTRON	The Netherlands
Kuulkers	Erik	ESA/ESAC	Spain
Lattimer	James	Stony Brook University	USA
Leeuwen van	Joeri	ASTRON/UvA	The Netherlands
Lin	Lin	Sabanci University	Turkey
Lommen	Andrea	Franklin and Marshall College	USA
Lorimer	Duncan	West Virginia University	USA
Madej	Oliwia	SRON	The Netherlands
Maitra	Chandreyee	Raman Research Institute	India
Majid	Walid	JPL/Caltech	USA
McCann	Andrew	Univeristy of Chicago , KICP	USA
McLaughlin	Maura	West Virginia University	USA
Mereghettti	Sandro	IASF-MILANO, INAF	Italy
Mitchell	Joe	Pontificia Universidad Catolica de Chile/ University of Bonn	Chile
Moiseenko	Sergey	Space Research Institute	Russia
Moran	Paul	Centre for Astronomy NUI Galway	Ireland
Mottez	Fabrice	Observatoire de Paris	France
Mukherjee	Dipanjan	Inter University Centre for Astron. & Astrophysics (IUCAA)	India
Newton	William	Texas A&M University-Commerce	USA
Ng	Cherry	Max-Planck-Institut für Radioastronomie	Germany
Patruno	Alessandro	University of Amsterdam	Netherlands
Petroff	Emily	Swinburne University of Technology	Australia
Pierbattista	Marco	INAF - IASF, Milano	Italy
Pilia	Maura	ASTRON	The Netherlands

Pletsch	Holger	Albert Einstein Institute, Hannover	Germany
Psaltis	Dimitrios	Registration to be completed	USA
Putten van	Thijs	University of Amsterdam	The Netherlands
Qiao	Guojun	School of Physics, Peking Univ.	China
Rankin	Joanna	Univ of Vermont	US
Ransom	Scott	NRAO / University of Virginia	USA
Rea	Nanda	CSIC-IEEC	Spain
Renault-Tinacci	Nicolas	AIM - Paris 7/CEA	France
Roques	Jean-Pierre	IRAP	France
Roy	Jayanta	National Centre for Radio Astrophysics	India
Sanchez-Fernandez	Celia	ESA	Spain
Sartore	Nicola	INAF - IASF Milano	Italy
Stappers	Benjamin	University of Manchester	United Kingdom
Thierry	Lehner	Luth, CNRS	France
Timokhin	Andrey	Goddard Space Flight Center	USA
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