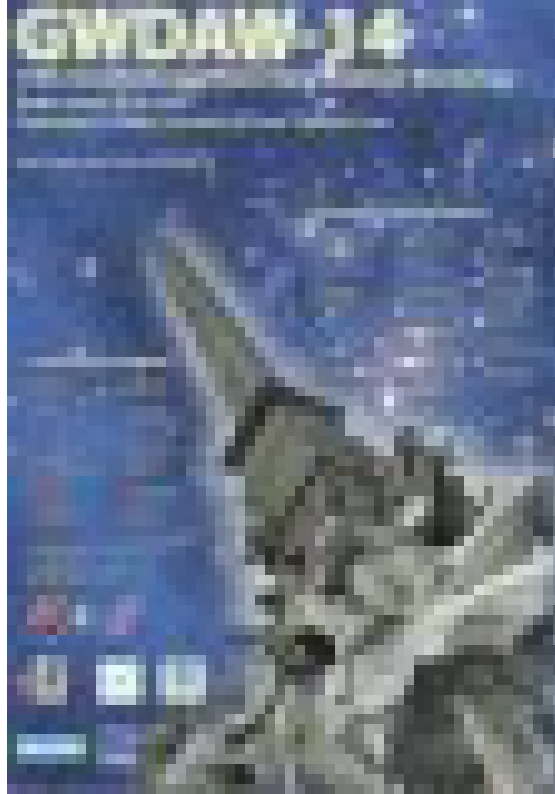


GWDAW-14



Report of Contributions

Contribution ID: 1

Type: **Talk**

Detecting signatures of the cosmic thermal history through pulsar observations

Thursday, 28 January 2010 17:55 (10 minutes)

Primary author: LATTANZI, Massimiliano (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Co-authors: MONTANI, Giovanni (ENEA); BENINI, Riccardo (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Presenter: LATTANZI, Massimiliano (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 2

Type: **Talk**

Short Gamma-Ray Bursts and Related Science

Thursday, 28 January 2010 08:45 (30 minutes)

Primary author: KOBAYASHI, Shiho (Liverpool John Moores University)

Presenter: KOBAYASHI, Shiho (Liverpool John Moores University)

Session Classification: Long GW transient events

Contribution ID: 3

Type: **Poster**

Parameter estimation on gravitational waves from multiple coalescing binaries

Wednesday, 27 January 2010 18:02 (2 minutes)

Primary author: MANDEL, Ilya (Northwestern University)

Presenter: MANDEL, Ilya (Northwestern University)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 6

Type: **Talk**

Detectors on the Earth

Tuesday, 26 January 2010 09:30 (35 minutes)

Presenter: RAPAGNANI, Piero (RM1)

Session Classification: Detector Status

Contribution ID: 27

Type: **Talk**

Radio Pulsar observations

*Thursday, 28 January 2010 14:30 (35 minutes)***Primary author:** CORDES, James (Univ. of Cornell, Ithaca, NY, USA)**Presenter:** CORDES, James (Univ. of Cornell, Ithaca, NY, USA)**Session Classification:** Continuous waves and Neutron star structure

Contribution ID: 37

Type: **Talk**

Cosmology with 300,000 Standard Sirens

Friday, 29 January 2010 12:00 (15 minutes)

Primary author: CUTLER, Curt (Jet Propulsion Lab)

Co-author: HOLZ, Daniel (Los Alamos National Lab)

Presenter: CUTLER, Curt (Jet Propulsion Lab)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: 40

Type: **Talk**

Perspectives of GW data analysis

Friday, 29 January 2010 12:30 (30 minutes)

Session Classification: Concluding remarks

Contribution ID: 41

Type: **Poster**

High frequency band sensitivity of large gravitational wave interferometers.

Tuesday, 26 January 2010 15:35 (2 minutes)

Primary authors: KOLOSNITZIN, Nikolai (Earth Physics Institute of RAS , Moscow); RUDENKO, Valentin (Sternberg Astronomical Institute of MSU, Moscow)

Presenter: RUDENKO, Valentin (Sternberg Astronomical Institute of MSU, Moscow)

Session Classification: Noise and data characterization - Poster presentations (Part I)

Contribution ID: 42

Type: **Poster**

Searching for Intermediate-Duration Gravitational-Wave Transients

Wednesday, 27 January 2010 18:00 (2 minutes)

Primary author: THRANE, Eric (University of Minnesota)

Presenter: THRANE, Eric (University of Minnesota)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 43

Type: **Talk**

Search for gravitational waves from known pulsars using the F and G statistics

Thursday, 28 January 2010 16:55 (25 minutes)

Primary author: KROLAK, Andrzej (Institute of Mathematics, Polish academy of Sciences)

Co-author: JARANOWSKI, Piotr (University of Bialystok)

Presenter: KROLAK, Andrzej (Institute of Mathematics, Polish academy of Sciences)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 44

Type: **Talk**

Discrete Resampling for Doppler and Spin Down correction in CW semitargeted searches

Thursday, 28 January 2010 17:25 (10 minutes)

Primary author: BRACCINI, Stefano (INFN - Pisa)

Co-authors: PASSUELLO, Diego (INFN - Pisa); CELLA, Giancarlo (INFN Pisa); FERRANTE, Isidoro (INFN Pisa - University of Pisa); TORRE, Oriella (INFN Pisa - University of Pisa)

Presenter: BRACCINI, Stefano (INFN - Pisa)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 45

Type: **Poster**

A directed search for continuous gravitational waves from unknown isolated neutron stars

Thursday, 28 January 2010 18:10 (2 minutes)

Primary authors: KRISHNAN, Badri (Albert Einstein Institut); BEHNKE, Berit (Albert Einstein Institut); PAPA, Maria Alessandra (Albert Einstein Institut)

Presenter: BEHNKE, Berit (Albert Einstein Institut)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 46

Type: **Poster**

Mapping the Galaxy with LISA

Wednesday, 27 January 2010 18:28 (2 minutes)

Primary author: MCKINNON, Jose (University of Texas at Brownsville)

Co-author: BENACQUISTA, Matthew (University of Texas at Brownsville)

Presenter: MCKINNON, Jose (University of Texas at Brownsville)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 47

Type: **Talk**

What Are We Learning On Coalescing Binaries From Gamma Ray Bursts

Thursday, 28 January 2010 09:20 (10 minutes)

Primary author: LATTANZI, Massimiliano (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Co-authors: PATRICELLI, Barbara (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza"); BIANCO, Carlo Luciano (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza"); RANGEL-LEMOS, L. Juracy (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza"); CAITO, Letizia (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza"); RUFFINI, Remo (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Presenter: RANGEL-LEMOS, L. Juracy (ICRA & Dip. di Fisica, Universita' di Roma "Sapienza")

Session Classification: Long GW transient events

Contribution ID: 48

Type: **Talk**

Continuous gravitational waves from neutron stars

Thursday, 28 January 2010 15:10 (25 minutes)

Primary author: OWEN, Benjamin (The Pennsylvania State University)

Presenter: OWEN, Benjamin (The Pennsylvania State University)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 49

Type: **Poster**

A chirplet pipeline for the detection of gravitational wave bursts

Wednesday, 27 January 2010 12:50 (2 minutes)

Primary author: CHARLTON, Philip (Charles Sturt University)

Presenter: CHARLTON, Philip (Charles Sturt University)

Session Classification: Short GW transient events II - Poster presentations

Contribution ID: 50

Type: **Poster**

Coherent metric for continuous gravitational waves from isolated systems

Thursday, 28 January 2010 18:12 (2 minutes)

Primary author: PRIX, Reinhard (Albert-Einstein-Institut Hannover)

Presenter: PRIX, Reinhard (Albert-Einstein-Institut Hannover)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 51

Type: **Talk**

Optimizing sensitivity of searches for continuous gravitational waves at fixed computing cost

Thursday, 28 January 2010 17:40 (10 minutes)

Primary author: SHALTEV, Miroslav (AEI - Hannover)

Co-author: PRIX, Reinhard (AEI - Hannover)

Presenter: SHALTEV, Miroslav (AEI - Hannover)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 52

Type: **Poster**

Deep Underground Environmental Studies for 3rd Generation Gravitational Wave Detectors

Tuesday, 26 January 2010 15:37 (2 minutes)

Summary

Observations are currently underway at the Deep Underground Science and Engineering Laboratory (Homestake, South Dakota, USA) in order to explore the suitability for building a 3rd generation gravitational wave interferometer deep underground. Results from our current network of seismometer and magnetometer observations will be presented, along with our plans for conducting gravity gradient measurements.

Primary author: CHRISTENSEN, Nelson (Carleton College)

Co-authors: RABELING, David (The Australian National University); TANNER, David (University of Florida); BARONE, Fabrizio (INFN Napoli); CELLA, Giancarlo (INFN Pisa); MUELLER, Guido (University of Florida); HARMS, Jan (University of Minnesota); VAN DEN BRAND, Jo (NIKHEF); BEKER, Mark (NIKHEF); COUGHLIN, Michael (Carleton College); DESALVO, Riccardo (LIGO Caltech); DORSHER, Steven (University of Minnesota); MARKA, Szabolcs (Columbia University); MANDIC, Vuk (University of Minnesota)

Presenter: CHRISTENSEN, Nelson (Carleton College)

Session Classification: Noise and data characterization - Poster presentations (Part I)

Contribution ID: 53

Type: **Talk**

LIGO S6 Detector Characterization Studies

Tuesday, 26 January 2010 16:30 (20 minutes)

Summary

There has been much work done in investigating the data quality during LIGO's S6 run. The results of the investigation by the detector characterization working group will be presented. The development of data quality flags and vetoes will be presented.

Primary author: CHRISTENSEN, Nelson (Carleton College)

Co-author: FOR THE LIGO SCIENTIFIC COLLABORATION (LSC) AND THE VIRGO COLLABORATION, LSC Virgo (LSC and Virgo)

Presenter: CHRISTENSEN, Nelson (Carleton College)

Session Classification: Noise analysis methods, data characterization and instrumental artifacts (Part II)

Contribution ID: 54

Type: **Poster**

Noise Line Searches for LIGO S6

Tuesday, 26 January 2010 15:39 (2 minutes)

Summary

There has been much work done in investigating the origin of noise lines during LIGO's S6 run. The results of the investigation will be presented. This work is done in conjunction with the LSC's detector characterization working group, and the LSC-Virgo continuous wave search group. The methods of the search, results, and implications will be presented.

Primary authors: COUGHLIN, Michael (Carleton College); CHRISTENSEN, Nelson (Carleton College)

Co-author: FOR THE LIGO SCIENTIFIC COLLABORATION (LSC) AND THE VIRGO COLLABORATION, LSC Virgo (LSC and Virgo)

Presenter: COUGHLIN, Michael (Carleton College)

Session Classification: Noise and data characterization - Poster presentations (Part I)

Contribution ID: 55

Type: **Poster**

A Bayesian strategy for the generation of pulsar time-of-arrival measurements

Thursday, 28 January 2010 18:14 (2 minutes)

Primary author: MESSENGER, Chris (AEI Hannover)

Co-authors: LOMMEN, Andrea (Franklin & Marshall College); DEMOREST, Paul (National Radio Astronomy Observatory, Virginia); RANSOM, Scott (National Radio Astronomy Observatory, Virginia)

Presenter: MESSENGER, Chris (AEI Hannover)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 56

Type: **Poster**

The Used Percentage Veto for LIGO S6 and Virgo VSR2 Gravitational Wave Searches

Tuesday, 26 January 2010 15:41 (2 minutes)

Summary

We describe the development of a veto that is used by the LSC's and Virgo's coalescing binary search groups. The veto is also used as a detector characterization tool by LIGO in the examination of data from the S6 run, and by Virgo in the examination of data from the VSR2 run. The methods of the analysis, results, and implications will be presented.

Primary authors: CHRISTENSEN, Nelson (Carleton College); ISOGAI, Tomoki (Carleton College)

Co-author: FOR THE LIGO SCIENTIFIC COLLABORATION (LSC) AND THE VIRGO COLLABORATION, LSC Virgo (LSC and Virgo)

Presenter: ISOGAI, Tomoki (Carleton College)

Session Classification: Noise and data characterization - Poster presentations (Part I)

Contribution ID: 57

Type: **Poster**

Background estimation by time slides in a network of gravitational wave detectors

Tuesday, 26 January 2010 15:43 (2 minutes)

Primary author: WAS, Michal (LAL - Orsay)

Presenter: WAS, Michal (LAL - Orsay)

Session Classification: Noise and data characterization - Poster presentations (Part I)

Contribution ID: 58

Type: **Poster**

Accretion Induced Collapse of WDs as a potential GW source for LIGO

Wednesday, 27 January 2010 12:52 (2 minutes)

Primary author: CANNIZZO, John (UMBC/CRESST/GSFC)

Presenter: CANNIZZO, John (UMBC/CRESST/GSFC)

Session Classification: Short GW transient events II - Poster presentations

Contribution ID: 59

Type: **Poster**

Measuring the black hole mass function using LISA capture sources

Wednesday, 27 January 2010 18:20 (2 minutes)

Primary author: GAIR, Jonathan (University of Cambridge)

Co-authors: TANG, Christopher (University of Cambridge); VOLONTERI, Marta (University of Michigan)

Presenter: GAIR, Jonathan (University of Cambridge)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 60

Type: **Poster**

Parameter-space metric of semicoherent searches for continuous gravitational waves

Thursday, 28 January 2010 18:16 (2 minutes)

Primary author: PLETSCH, Holger (Albert-Einstein-Institut Hannover)

Presenter: PLETSCH, Holger (Albert-Einstein-Institut Hannover)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 61

Type: **Poster**

Search for continuous gravitational waves from PSR J2144-3933 using a magnetically-levitated torsion antenna

Thursday, 28 January 2010 18:18 (2 minutes)

Primary author: ISHIDOSHIRO, Koji (Department of Physics, Graduate School of Science, University of Tokyo)

Co-authors: TAKAMORI, Akiteru (Earthquake Research Institute, University of Tokyo); TAKAHASHI, Hiroataka (Nagaoka University of Technology); OKADA, Kenshi (Department of Physics, University of Tokyo); TSUBONO, Kimio (Department of Physics, University of Tokyo); ANDO, Masaki (Department of Physics, Kyoto University); KANDA, Nobuyuki (Department of Physics, Osaka City University); ASO, yoichi (Department of Physics, University of Tokyo)

Presenter: ISHIDOSHIRO, Koji (Department of Physics, Graduate School of Science, University of Tokyo)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 62

Type: **Poster**

An all-sky search for continuous gravitational waves from neutron stars in binary systems using the TwoSpect algorithm

Thursday, 28 January 2010 18:20 (2 minutes)

Primary author: GOETZ, Evan (University of Michigan)

Co-author: RILES, Keith (University of Michigan)

Presenter: GOETZ, Evan (University of Michigan)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 63

Type: **Talk**

The Mock LISA Data Challenges: Challenge 4

Thursday, 28 January 2010 12:10 (25 minutes)

Primary author: PORTER, Edward (APC Laboratory)

Presenter: PORTER, Edward (APC Laboratory)

Session Classification: Long GW transient events

Contribution ID: 64

Type: **Poster**

The Impact of Mergers on Parameter Accuracy with LISA

Wednesday, 27 January 2010 18:16 (2 minutes)

Primary author: MCWILLIAMS, Sean (NASA GSFC)

Presenter: MCWILLIAMS, Sean (NASA GSFC)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 65

Type: **Poster**

Direction independent null streams in multiple co-located gravitational wave detectors

Tuesday, 26 January 2010 16:55 (2 minutes)

Primary authors: VAISHNAV, Birjoo (CGWA, University of Texas, Brownsville); MOHANTY, Soumya (CGWA, University of Texas, Brownsville.)

Presenter: VAISHNAV, Birjoo (CGWA, University of Texas, Brownsville)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 66

Type: **Talk**

Measuring Massive Black Hole Binaries with LISA

Thursday, 28 January 2010 12:40 (15 minutes)

Primary author: LANG, Ryan (NASA Goddard Space Flight Center)

Co-authors: CORNISH, Neil (Montana State University); HUGHES, Scott (Massachusetts Institute of Technology)

Presenter: LANG, Ryan (NASA Goddard Space Flight Center)

Session Classification: Long GW transient events

Contribution ID: 67

Type: **Poster**

Physical Templates in the Search for Gravitational Waves from Spinning Compact-Object Binaries with LIGO

Wednesday, 27 January 2010 18:06 (2 minutes)

Primary author: FAZI, Diego (Northwestern University)

Presenter: FAZI, Diego (Northwestern University)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 68

Type: **Poster**

Gravitational waves from highly eccentric binary black hole encounters: first steps toward detection

Wednesday, 27 January 2010 18:08 (2 minutes)

Primary author: VAISHNAV, Birjoo (CGWA, University of Teas at Brownsville)

Co-authors: LEVIN, Janna (Barnard College of Columbia University); BENACQUISTA, Matthew (CGWA, University of Texas at Brownsville)

Presenter: VAISHNAV, Birjoo (CGWA, University of Teas at Brownsville)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 69

Type: **Poster**

Systematic errors in the construction of hybrid waveforms for binary black holes

Wednesday, 27 January 2010 18:10 (2 minutes)

Primary author: OHME, Frank (Albert Einstein Institute)

Presenter: OHME, Frank (Albert Einstein Institute)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 70

Type: **Talk**

Data quality in gravitational wave burst and inspiral searches in the second Virgo science run

Tuesday, 26 January 2010 16:05 (20 minutes)

Primary author: ROBINET, Florent (LAL IN2P3)

Presenter: ROBINET, Florent (LAL IN2P3)

Session Classification: Noise analysis methods, data characterization and instrumental artifacts (Part II)

Contribution ID: 71

Type: **Poster**

Classification of Glitch Waveforms in Gravitational Wave detector characterization

Tuesday, 26 January 2010 16:57 (2 minutes)

Primary author: OBAID, Razib (University of Texas at Brownsville)

Co-author: MUKHERJEE, Soma (University of Texas at Brownsville)

Presenter: OBAID, Razib (University of Texas at Brownsville)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 72

Type: **Talk**

Matching Pursuit algorithm –an outline of possible usage for gravitational waves' data analysis

Wednesday, 27 January 2010 12:30 (15 minutes)

Primary author: ZADROZNY, Adam (The Andrzej Soltan Institute for Nuclear Studies (IPJ))

Presenter: ZADROZNY, Adam (The Andrzej Soltan Institute for Nuclear Studies (IPJ))

Session Classification: Short GW transient events II

Contribution ID: 73

Type: **Talk**

LIGO-Virgo Triggered Follow-up with NASA High Energy Photon Survey Missions

Wednesday, 27 January 2010 10:05 (15 minutes)

Primary author: CAMP, Jordan (NASA)

Co-authors: CORSI, alessandra (inf); CUOCO, elena (inf); CANNIZZO, john (NASA)

Presenter: CAMP, Jordan (NASA)

Session Classification: Short GW transient events

Contribution ID: 74

Type: **Poster**

Test on simulated data of cuInspiral, the GPU high arithmetic intensity prototype library for coalescing binaries detection.

Wednesday, 27 January 2010 18:12 (2 minutes)

Primary author: BOSI, Leone Battista (PG)

Presenter: BOSI, Leone Battista (PG)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 75

Type: **Poster**

Model selection using Bayesian evidence for LISA gravitational wave burst signals

Wednesday, 27 January 2010 12:54 (2 minutes)

Primary authors: FERROZ, Farhan (University of Cambridge); GAIR, Jonathan (University of Cambridge); GRAFF, Philip (University of Cambridge)

Co-authors: LASENBY, Anthony (University of Cambridge); HOBSON, Michael (University of Cambridge)

Presenter: GRAFF, Philip (University of Cambridge)

Session Classification: Short GW transient events II - Poster presentations

Contribution ID: 76

Type: **Talk**

Very Low Latency Search for Low Mass Compact Binary Coalescences in the LIGO S6 and Virgo VSR2 Data

Thursday, 28 January 2010 09:50 (10 minutes)

Primary author: BUSKULIC, Damir (Université de Savoie / LAPP / IN2P3)

Presenter: BUSKULIC, Damir (Université de Savoie / LAPP / IN2P3)

Session Classification: Long GW transient events

Contribution ID: 77

Type: **Talk**

Testing scalar-tensor theory from observations of gravitational wave bursts with a network of interferometric detectors

Wednesday, 27 January 2010 11:30 (15 minutes)

Primary author: HAYAMA, Kazuhiro (National Astronomical Observatory of Japan)

Co-authors: NISHIZAWA, Atsushi (National Astronomical Observatory of Japan); TARUYA, Atsushi (University of Tokyo)

Presenter: HAYAMA, Kazuhiro (National Astronomical Observatory of Japan)

Session Classification: Short GW transient events II

Contribution ID: 78

Type: **Poster**

Proposed Multi-messenger observation plan for Sco X-1 with RXTE and gravitational wave detectors

Wednesday, 27 January 2010 10:25 (2 minutes)

Primary author: HAYAMA, Kazuhiro (National Astronomical Observatory of Japan)

Co-author: MESSENGER, Chris (Albert Einstein Institute , Hannover)

Presenter: HAYAMA, Kazuhiro (National Astronomical Observatory of Japan)

Session Classification: Short GW transient events - Poster presentations

Contribution ID: 79

Type: **Poster**

Application of support vector machines to multivariate gravitational-wave veto analysis

Tuesday, 26 January 2010 16:59 (2 minutes)

Primary author: WANG, Zhen (Tsinghua University)

Co-authors: KATSAVOUNIDIS, Erik (MIT); CAO, Junwei (Tsinghua University); BLACKBURN, Lindy (MIT); WANG, Xiaoge (Tsinghua University)

Presenter: WANG, Xiaoge (Tsinghua University)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 80

Type: **Talk**

Back-scattered light noise in Virgo second science run data

Tuesday, 26 January 2010 15:00 (15 minutes)

Primary authors: SWINKELS, Bas (European Gravitational Observatory); FIORI, Irene (European Gravitational Observatory)

Co-author: THE VIRGO COLLABORATION

Presenter: FIORI, Irene (European Gravitational Observatory)

Session Classification: Noise analysis methods, data characterization and instrumental artifacts (Part I)

Contribution ID: 81

Type: **Talk**

From the detection to the measurement of transient gravitational wave characteristics

Wednesday, 27 January 2010 12:10 (15 minutes)

Primary author: VEDOVATO, Gabriele (INFN Padova)

Presenter: VEDOVATO, Gabriele (INFN Padova)

Session Classification: Short GW transient events II

Contribution ID: 82

Type: **Talk**

Estimation of the False Alarm Rate for coherent searches of gravitational waves.

Wednesday, 27 January 2010 11:50 (15 minutes)

Primary author: PRODI, Giovanni Andrea (Univ. of Trento and INFN)

Presenter: PRODI, Giovanni Andrea (Univ. of Trento and INFN)

Session Classification: Short GW transient events II

Contribution ID: 83

Type: **Talk**

Directional searches for transient gravitational waves using a coherent analysis on a selectable sky region

Wednesday, 27 January 2010 15:45 (12 minutes)

Primary author: SALEMI, Francesco (AEI Hannover)

Presenter: SALEMI, Francesco (AEI Hannover)

Session Classification: Short GW transient events III

Contribution ID: 84

Type: **Poster**

Wet and dry mergers of binary black holes in the gravitational wave spectrum

Wednesday, 27 January 2010 18:14 (2 minutes)

Primary author: VAISHNAV, Birjoo (Center for Gravitational Wave Astronomy, University fo Texas, Brownsville, TX, USA.)

Co-authors: SHOEMAKER, Deirdre (CRA, GeorgiaTech); HEALY, James (CGWP, PSU)

Presenter: VAISHNAV, Birjoo (Center for Gravitational Wave Astronomy, University fo Texas, Brownsville, TX, USA.)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 85

Type: **Talk**

Long Gamma Ray Burst Observations

Wednesday, 27 January 2010 09:00 (25 minutes)

Primary author: GEHRELS, Neil (NASA-GSFC)

Presenter: PIRO, Luigi (INAF - IAS)

Session Classification: Short GW transient events

Contribution ID: 86

Type: **Poster**

Search for Gravitational Waves from Soft Gamma Repeaters

Wednesday, 27 January 2010 10:27 (2 minutes)

Primary author: MARKA, Zsuzsa (Columbia University)

Presenter: MARKA, Zsuzsa (Columbia University)

Session Classification: Short GW transient events - Poster presentations

Contribution ID: 87

Type: **Talk**

All-sky search for gravitational-wave bursts in the first joint LIGO-GEO-Virgo run

Wednesday, 27 January 2010 15:00 (25 minutes)

Summary

presented on behalf of the LIGO and Virgo collaborations.

Primary author: KLIMENKO, Sergey (University of Florida)

Presenter: KLIMENKO, Sergey (University of Florida)

Session Classification: Short GW transient events III

Contribution ID: 88

Type: **Poster**

Time Delay Interferometry and Clocknoise Removal

Tuesday, 26 January 2010 17:03 (2 minutes)

Primary author: OTTO, Markus (AEI Hannover)

Co-authors: HEINZEL, Gerhard (AEI Hannover); DANZMANN, Karsten (AEI Hannover)

Presenter: OTTO, Markus (AEI Hannover)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 89

Type: **Talk**

IceCube: Multiwavelength Astronomy with Neutrinos

Wednesday, 27 January 2010 16:30 (25 minutes)

Primary author: HALZEN, Francis (University of Wisconsin Madison)

Presenter: HALZEN, Francis (University of Wisconsin Madison)

Session Classification: Short GW transient events III

Contribution ID: 90

Type: **Poster**

Data Quality studies for low frequency non-stationarity present in LIGO science data

Tuesday, 26 January 2010 17:05 (2 minutes)

Primary author: STONE, Robert (The University of Texas at Brownsville and Texas Southmost College)

Co-author: MUKHERJEE, Soma (The University of Texas at Brownsville and Texas Southmost College)

Presenter: STONE, Robert (The University of Texas at Brownsville and Texas Southmost College)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 91

Type: **Talk**

Pulsar timing measurements

*Tuesday, 26 January 2010 11:20 (30 minutes)***Primary author:** CHAMPION, David (Max-Planck-Institute für Radioastronomie)**Presenter:** CHAMPION, David (Max-Planck-Institute für Radioastronomie)**Session Classification:** Detector Status

Contribution ID: 92

Type: **Talk**

Robust multi-detector statistics for coherently searching for signals from coalescing compact binaries

Tuesday, 26 January 2010 15:20 (10 minutes)

Primary author: GHOSH, Shaon (Graduate student)

Presenter: GHOSH, Shaon (Graduate student)

Session Classification: Noise analysis methods, data characterization and instrumental artifacts (Part I)

Contribution ID: 93

Type: **Talk**

A method for detection of known sources of continuous gravitational wave signals in non-stationary data.

Thursday, 28 January 2010 15:40 (20 minutes)

Primary author: ASTONE, Pia (RM1)

Co-authors: PALOMBA, Cristiano (RM1); D'ANTONIO, Sabrina (RM2); FRASCA, Sergio (Univ. of Rome "La Sapienza" and INFN RM1)

Presenter: ASTONE, Pia (RM1)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 94

Type: **Talk**

Efficiently Enclosing the Signal Manifold: SVD Approximations of Compact Binary Coalescence Gravitational-Wave Signals

Thursday, 28 January 2010 10:05 (10 minutes)

Primary authors: CHAPMAN, Adrian (LIGO Lab, California Institute of Technology); WEINSTEIN, Alan (LIGO Lab, California Institute of Technology); SEARLE, Antony (LIGO Lab, California Institute of Technology); HANNA, Chad (LIGO Lab, California Institute of Technology); KEPPEL, Drew (LIGO Lab and Theoretical Astrophysics, California Institute of Technology); CANNON, Kipp (LIGO Lab, California Institute of Technology)

Presenter: KEPPEL, Drew (LIGO Lab and Theoretical Astrophysics, California Institute of Technology)

Session Classification: Long GW transient events

Contribution ID: 96

Type: **Poster**

Detection of GW bursts with chirplet-like template families

Wednesday, 27 January 2010 12:56 (2 minutes)

Primary author: CHASSANDE-MOTTIN, Eric (CNRS AstroParticule et Cosmologie)

Co-author: MIELE, Miriam (AstroParticule et Cosmologie)

Presenters: CHASSANDE-MOTTIN, Eric (CNRS AstroParticule et Cosmologie); MIELE, Miriam (AstroParticule et Cosmologie)

Session Classification: Short GW transient events II - Poster presentations

Contribution ID: 97

Type: **Poster**

Measuring the precession during the inspiral of spinning Massive Black Hole binaries with LISA

Wednesday, 27 January 2010 18:24 (2 minutes)

Primary author: PETITEAU, Antoine (Albert Einstein Institute - Potsdam)

Co-author: BABACK, Stanislav (Albert Einstein Institute - Potsdam)

Presenter: PETITEAU, Antoine (Albert Einstein Institute - Potsdam)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 98

Type: **Talk**

Results and Challenges in Astrophysically Triggered Gravitational Wave Searches

Wednesday, 27 January 2010 09:35 (20 minutes)

Primary author: MARKA, Szabolcs (Columbia University)

Presenter: MARKA, Szabolcs (Columbia University)

Session Classification: Short GW transient events

Contribution ID: 99

Type: **Poster**

Selecting Candidate GW Detections for EM Follow-up Observations

Wednesday, 27 January 2010 10:29 (2 minutes)

Primary author: SUTTON, Patrick (Cardiff University)

Co-author: NUTTALL, Laura (Cardiff University)

Presenter: NUTTALL, Laura (Cardiff University)

Session Classification: Short GW transient events - Poster presentations

Contribution ID: **100**

Type: **Poster**

Tools for noise characterization in Virgo

Tuesday, 26 January 2010 17:01 (2 minutes)

Primary author: CUOCO, Elena (PI)

Presenter: CUOCO, Elena (PI)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 101

Type: **Poster**

Hybrid spin Taylor waveforms with ring-down attached

Wednesday, 27 January 2010 18:18 (2 minutes)

Primary author: STURANI, Riccardo (Università di Urbino - INFN Firenze)

Co-authors: VICERÉ, Andrea (Università di Urbino - INFN Firenze); SHOEMAKER, Deirdre (Georgia Institute of Technology, Atlanta, USA); GUIDI, Gianluca M (Università di Urbino - INFN Firenze); HEALY, James (Georgia Institute of Technology, Atlanta, USA); CADONATI, Laura (University of Massachusetts - Amherst, USA); FISCHETTI, Sebastianl (University of Massachusetts - Amherst, USA)

Presenter: STURANI, Riccardo (Università di Urbino - INFN Firenze)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 102

Type: **Talk**

Search for gravitational waves associated with short gamma-ray bursts in LIGO's fifth and Virgo's first science run

Thursday, 28 January 2010 09:35 (10 minutes)

Primary author: DIETZ, Alexander (LAPP Annecy-le-vieux)

Presenter: DIETZ, Alexander (LAPP Annecy-le-vieux)

Session Classification: Long GW transient events

Contribution ID: 103

Type: **Talk**

Stochastic backgrounds of gravitational waves from extragalactic sources

Friday, 29 January 2010 11:10 (25 minutes)

Primary author: SCHNEIDER, Raffaella (INAF/Osservatorio Astrofisico di Arcetri)

Co-authors: MARASSI, Stefania (Universita' degli Studi di Roma - La Sapienza); FERRARI, Valeria (Universita' degli Studi di Roma - La Sapienza)

Presenter: SCHNEIDER, Raffaella (INAF/Osservatorio Astrofisico di Arcetri)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: **104**Type: **Talk**

Probing the physics of neutron stars with gravitational waves

Wednesday, 27 January 2010 10:55 (30 minutes)

Primary author: FERRARI, Valeria (RM1)

Presenter: FERRARI, Valeria (RM1)

Session Classification: Short GW transient events II

Contribution ID: 105

Type: **Talk**

The interface between numerical relativity and gravitational wave data analysis

Thursday, 28 January 2010 11:45 (20 minutes)

Primary author: BADRI, Krishnan (Albert Einstein Institute)

Presenter: BADRI, Krishnan (Albert Einstein Institute)

Session Classification: Long GW transient events

Contribution ID: 106

Type: **Talk**

Parameter estimation of massive black hole binaries with pulsar timing arrays.

Friday, 29 January 2010 11:40 (15 minutes)

Primary author: SESANA, Alberto (Albert Einstein Institute, Golm)

Presenter: SESANA, Alberto (Albert Einstein Institute, Golm)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: 107

Type: **Talk**

Overview of the search for gravitational wave signals from compact binary coalescences in LIGO and Virgo data during S6/VSR2

Thursday, 28 January 2010 10:55 (15 minutes)

Primary author: LUNDGREN, Andrew (for LSC collaboration and Virgo collaboration) (Syracuse University)

Presenter: LUNDGREN, Andrew (for LSC collaboration and Virgo collaboration) (Syracuse University)

Session Classification: Long GW transient events

Contribution ID: **108**Type: **Poster**

An improved method for estimating the efficiency of detectors

Wednesday, 27 January 2010 18:22 (2 minutes)

Primary author: ROBINSON, Craig (Cardiff University)

Presenter: ROBINSON, Craig (Cardiff University)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: **109**Type: **Talk**

How 'ideal' is current LIGO-Virgo data?

Primary authors: SATHYAPRAKASH, Bangalore (Cardiff University); ROBINSON, Craig (Cardiff University); REGIMBAU, Tania (Observatoire de la Cote d'Azur)

Presenter: ROBINSON, Craig (Cardiff University)

Contribution ID: 110

Type: **Poster**

Polynomial search for continuous gravitational waves from neutron stars in binary systems

Thursday, 28 January 2010 18:22 (2 minutes)

Summary

Deformed neutron stars are a prime candidate for the emittance of continuous gravitational waves. Since the signals are weak, long integration times are needed. However, due to the Doppler shifts and amplitude variations introduced by the detector movement, the coherence time is limited already for solitary neutron stars. Several hierarchical search strategies exist, either based on the power in frequency domain or on a search with optimal filters. These searches require lots of computing resources already for solitary neutron stars and are not readily extendable to neutron stars in binary systems. Most of the neutron stars with spin frequencies above 10 Hz are located in binary systems. In order to fully exploit the capability of the advanced LIGO and Virgo detectors and future third-generation detectors like the Einstein telescope, a new analysis strategy has been developed and implemented, in which a search is performed for signals with a polynomial phase dependence in time domain. With this search strategy, also signals with additional Doppler shifts from the binary motion can be found. We will present our strategy with simulated data, compare it to possible power-based strategies, and give inferred detection limits for classes of sources for the proposed Einstein Telescope.

Primary authors: VAN DEN BRAND, Jo F.J. (Vrije Universiteit Amsterdam); VAN DER PUTTEN, Siphon (Nikhef); BULTEN, henk J. (Vrije Universiteit Amsterdam/Nikhef)

Presenter: BULTEN, henk J. (Vrije Universiteit Amsterdam/Nikhef)

Session Classification: Continuous Waves and Neutron star structure - Poster presentations

Contribution ID: 111

Type: **Talk**

Joint searches of gravitational waves and high-energy neutrinos

Wednesday, 27 January 2010 17:40 (15 minutes)

Primary author: CHASSANDE-MOTTIN, Eric (CNRS AstroParticule et Cosmologie)

Presenter: CHASSANDE-MOTTIN, Eric (CNRS AstroParticule et Cosmologie)

Session Classification: Short GW transient events III

Contribution ID: 112

Type: **Talk**

Real-time Astronomy with LIGO and Virgo: Status and Prospects

Wednesday, 27 January 2010 15:30 (12 minutes)

Primary author: KATSAVOUNIDIS (FOR THE LIGO AND VIRGO COLLABORATIONS), Erik (Massachusetts Institute of Technology)

Presenter: KATSAVOUNIDIS (FOR THE LIGO AND VIRGO COLLABORATIONS), Erik (Massachusetts Institute of Technology)

Session Classification: Short GW transient events III

Contribution ID: 113

Type: **Talk**

Sequential Tests: a Tool for GW Detection

Thursday, 28 January 2010 16:25 (25 minutes)

Primary authors: PINTO, Innocenzo (University of Sannio at Benevento); LONGO, Maurizio (University of Salerno); MARANO, Stefano (University of Salerno); MATTA, Vincenzo (University of Salerno)

Presenter: MATTA, Vincenzo (University of Salerno)

Session Classification: Continuous waves and Neutron star structure

Contribution ID: 114

Type: **Talk**

Coherent Target Detection in Heavy-Tailed Compound-Gaussian Clutter: Survey and New Results

Tuesday, 26 January 2010 14:30 (25 minutes)

Primary authors: GINI, Fulvio (University of Pisa); SANGSTON, Kevin (Atlanta, GA, USA); GRECO, Maria (DII, University of Pisa, IT)

Presenters: GINI, Fulvio (University of Pisa); SANGSTON, Kevin (Atlanta, GA, USA); GRECO, Maria (DII, University of Pisa, IT)

Session Classification: Noise analysis methods, data characterization and instrumental artifacts (Part I)

Contribution ID: 115

Type: **Poster**

Impact of Residual non-Gaussianity after Line Removal in Interferometric Data on Detection Performance

Tuesday, 26 January 2010 17:09 (2 minutes)

Primary authors: PINTO, Innocenzo (University of Sannio at Benevento, LSC and INFN); LONGO, Maurizio (University of Salerno and LSC); CONTE, Roberto (University of Salerno and LSC); MATTA, Vincenzo (University of Salerno and LSC)

Presenters: PINTO, Innocenzo (University of Sannio at Benevento, LSC and INFN); LONGO, Maurizio (University of Salerno and LSC); CONTE, Roberto (University of Salerno and LSC); MATTA, Vincenzo (University of Salerno and LSC)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 116

Type: **Poster**

A Neural Net for Glitch-Burst Discrimination and Glitch Classification

Tuesday, 26 January 2010 17:07 (2 minutes)

Primary authors: PINTO, Innocenzo (WavesGroup, INFN and LSC); TROIANO, Luigi (University of Sannio at Benevento); PRINCIPE, Maria (University of Sannio at Benevento); RAMPONE, Salvatore (University of Sannio at Benevento); PIERRO, Vincenzo (University of Sannio at Benevento)

Presenters: PINTO, Innocenzo (WavesGroup, INFN and LSC); TROIANO, Luigi (University of Sannio at Benevento); PRINCIPE, Maria (University of Sannio at Benevento); RAMPONE, Salvatore (University of Sannio at Benevento); PIERRO, Vincenzo (University of Sannio at Benevento)

Session Classification: Noise and data characterization - Poster presentations (Part II)

Contribution ID: 117

Type: **Poster**

One More Technique for Burst Source Position Identification: X-Wigner Spectra

Wednesday, 27 January 2010 12:58 (2 minutes)

Primary authors: POSTIGLIONE, Fabio (DIIE, University of Salerno, INFN and LSC); PINTO, Innocenzo (WavesGroup, University of Sannio, IT, INFN and LSC); PRINCIPE, Maria (WavesGroup, University of Sannio, IT, INFN and LSC); CROCE, Rocco (WavesGroup, University of Sannio, IT); PIERRO, Vincenzo (WavesGroup, University of Sannio, IT, INFN and LSC)

Presenters: POSTIGLIONE, Fabio (DIIE, University of Salerno, INFN and LSC); PINTO, Innocenzo (WavesGroup, University of Sannio, IT, INFN and LSC); PRINCIPE, Maria (WavesGroup, University of Sannio, IT, INFN and LSC); CROCE, Rocco (WavesGroup, University of Sannio, IT); PIERRO, Vincenzo (WavesGroup, University of Sannio, IT, INFN and LSC)

Session Classification: Short GW transient events II - Poster presentations

Contribution ID: **118**Type: **Talk**

General Relativistic Simulations of Compact Binaries

Thursday, 28 January 2010 11:15 (25 minutes)

Primary author: GIACOMAZZO, Bruno (University of Maryland, USA)

Presenter: GIACOMAZZO, Bruno (University of Maryland, USA)

Session Classification: Long GW transient events

Contribution ID: 119

Type: **Poster**

Supermassive black hole spin-flip during the inspiral

Wednesday, 27 January 2010 18:26 (2 minutes)

Primary author: GERGELY, László Á (University of Szeged)

Co-authors: CARAMETE, Laurentiu (Institute for Space Sciences Bucharest); BIERMANN, Peter L (Max Planck Institut für Radioastronomie Bonn)

Presenter: GERGELY, László Á (University of Szeged)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 120

Type: **Poster**

Compact binary waveform recovery from the cross-correlated data of two detectors by matched filtering with spinning templates

Wednesday, 27 January 2010 18:04 (2 minutes)

Primary author: KERESZTES, Zoltán (University of Szeged)

Co-authors: VERÉB, László (University of Szeged); GERGELY, László Á (University of Szeged); RAF-FAI, Péter (Loránd Eötvös University Budapest)

Presenter: GERGELY, László Á (University of Szeged)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 121

Type: **Talk**

Welcome of the Director of the Department of Physics

Tuesday, 26 January 2010 08:55 (10 minutes)

Session Classification: Welcome Session

Contribution ID: 122

Type: **Talk**

Welcome of the Director of the INFN Section of Rome

Tuesday, 26 January 2010 09:05 (10 minutes)

Session Classification: Welcome Session

Contribution ID: 123

Type: **Talk**

Introduction of the E4 Computer Engineering and announcement of the E4 Computer Engineering award

Tuesday, 26 January 2010 09:15 (10 minutes)

Session Classification: Welcome Session

Contribution ID: 126

Type: **Talk**

Cosmological stochastic backgrounds

Friday, 29 January 2010 09:00 (30 minutes)

Primary author: MAGGIORE, Michele (University of Geneva, Switzerland)

Presenter: MAGGIORE, Michele (University of Geneva, Switzerland)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: 127

Type: **Talk**

3rd generation GW observatories: Science potentialities and new technologies

Tuesday, 26 January 2010 11:55 (30 minutes)

Primary author: PUNTURO, Michele (INFN Perugia)

Presenter: PUNTURO, Michele (INFN Perugia)

Session Classification: Detector Status

Contribution ID: 128

Type: **Talk**

Measuring the Stochastic Gravitational-Wave Background with LIGO-Virgo

Friday, 29 January 2010 10:10 (25 minutes)

Primary author: THRANE, Eric (University of Minnesota)

Presenter: THRANE, Eric (University of Minnesota)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: 129

Type: **Poster**

Model selection with Markov-Chain Monte-Carlo results applied to Gravitational Waves

Wednesday, 27 January 2010 18:30 (2 minutes)

Primary authors: RÖVER, Christian; MENDEL, Ilya; VAN DER SLUYS, Marc; CHRISTENSEN, Nelson; KALOGERA, Vicky; RAYMOND, Vivien (Dearborn Observatory, Northwestern University, Evanston, IL, USA)

Presenter: RAYMOND, Vivien (Dearborn Observatory, Northwestern University, Evanston, IL, USA)

Session Classification: Long and Short GW transients - Poster presentations

Contribution ID: 130

Type: **Talk**

Welcome of the Faculty Dean

Tuesday, 26 January 2010 08:45 (10 minutes)

Session Classification: Welcome Session

Contribution ID: 131

Type: **Talk**

Toward the Computation of Gravitational Wave Signatures in Three-Dimensional Multi-Physics Simulations of Core Collapse Supernovae

Wednesday, 27 January 2010 14:30 (25 minutes)

Primary author: MEZZACAPPA, Anthony (Oak Ridge National Laboratory, Oak Ridge, TN USA)

Presenter: MEZZACAPPA, Anthony (Oak Ridge National Laboratory, Oak Ridge, TN USA)

Session Classification: Short GW transient events III

Contribution ID: 133

Type: **Talk**

Space-borne Gravitational Wave Observatories

Tuesday, 26 January 2010 10:40 (35 minutes)

Primary author: VITALE, Stefano (Department of Physics, University of Trento, and INFN Gruppo di Trento, Italy)

Presenter: VITALE, Stefano (Department of Physics, University of Trento, and INFN Gruppo di Trento, Italy)

Session Classification: Detector Status

Contribution ID: 134

Type: **Talk**

CMB and B-modes : Planck and future perspectives

Friday, 29 January 2010 09:35 (30 minutes)

Primary author: DE BERNARDIS, Paolo (INFN Roma, Italy)

Presenter: DE BERNARDIS, Paolo (INFN Roma, Italy)

Session Classification: Stochastic Gravitational Wave Background

Contribution ID: 135

Type: **Talk**

The ANTARES Neutrino Telescope and Multi-Messenger Astronomy

Wednesday, 27 January 2010 17:05 (25 minutes)

Primary author: PRADIER, Thierry (IReS & Université Louis-Pasteur)

Presenter: PRADIER, Thierry (IReS & Université Louis-Pasteur)

Session Classification: Short GW transient events III

Contribution ID: 136

Type: **Talk**

Status of the search for untriggered gravitational wave signals from compact binary coalescences in LIGO and Virgo data during S5/VSR1

Thursday, 28 January 2010 10:40 (15 minutes)

Primary author: HARRY, Ian (Cardiff University)

Co-author: LSC AND VIRGO, For the (many)

Presenters: LSC AND VIRGO, For the (many); HARRY, Ian (Cardiff University)

Session Classification: Long GW transient events

Contribution ID: 138

Type: **not specified**

Round table: What evidence would make a convincing case for the first GW detection claim?

Tuesday, 26 January 2010 17:15 (20 minutes)

Primary authors: MOURS, Benoit (LAPP - Annecy, France); FIORINI, Ettore (MI); HALZEN, Francis (University of Wisconsin Madison); CORDES, James (Univ. of Cornell, Ithaca, NY, USA); GEHRELS, Neil (NASA-GSFC); KANDA, Nobuyuki (Department of Physics, Osaka City University)

Presenters: MOURS, Benoit (LAPP - Annecy, France); FIORINI, Ettore (MI); HALZEN, Francis (University of Wisconsin Madison); CORDES, James (Univ. of Cornell, Ithaca, NY, USA); GEHRELS, Neil (NASA-GSFC); KANDA, Nobuyuki (Department of Physics, Osaka City University)

Session Classification: Round table: What evidence would make a convincing case for the first GW detection claim?

Contribution ID: 139

Type: **Talk**

Lunch & Social Events information

Tuesday, 26 January 2010 12:30 (5 minutes)

Presenter: RICCI, Fulvio (RM1)