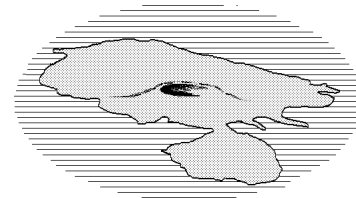


# FRASCATI WORKSHOP 2007

May 28 – June 2, Vulcano, Italy



## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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### F I N A L P R O G R A M

#### Sunday 27 Afternoon

16.30 REGISTRATION OF PARTICIPANTS  
18.30 END OF REGISTRATION  
19.15 WELCOME COCKTAIL PARTY  
20.00 DINNER

#### Monday 28 Morning

08.00 REGISTRATION OF PARTICIPANTS  
08.25 END OF REGISTRATION  
08.30 BEGINNING of the WORKSHOP  
08.30 Franco GIOVANNELLI Welcome Address

#### OPENING REMARKS

Chairperson: NINO PANAGIA

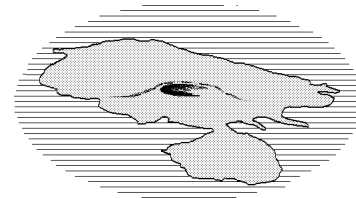
08.35 Franco GIOVANNELLI The Impact of Multifrequency Astrophysics  
on Our Knowledge of the Physics of the  
Universe.  
09.10 Giulio AURIEMMA CPT violations in astrophysics and  
cosmology.  
09.45 Andrea SANTANGELO HESS Highlights.  
10.20 Coffee Break

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John's College (Annapolis) – Centre d'Etude Spatiale de Rayonnements, CNRS/UPS/OMP, Toulouse, France – Institute für  
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### OPENING REMARKS

Chairperson: GIULIO AURIEMMA

- |       |                  |  |
|-------|------------------|--|
| 10.50 | Elena PIAN       | Swift and INTEGRAL observations of blazars in outburst: a test for jet models and predictions for GLAST and AGILE. |
| 11.25 | Toshio MATSUMOTO | Observations of near infrared extragalactic background light.  |
| 12.00 | Aldo MORSELLI    | Search for Dark Matter in the gamma-ray sky.   |
| 12.35 |                  | END OF THE SESSION   |

### INTERVAL

Monday 28 Afternoon

### COSMOLOGY

Chairperson: KINWAH WU

- |       |                      |   |
|-------|----------------------|---|
| 17.00 | Sergio COLAFRANCESCO | Cluster of Galaxies: the largest multifrequency laboratories for astroparticle physics. |
| 17.35 | John BECKMAN         | Merger processes in Galaxy Evolution.   |
| 18.10 | Naomi OTA            | Lx-T relation and thermal evolution of galaxy clusters.                                 |
| 18.45 | Sabine SCHINDLER     | Metal enrichment processes in the intra-cluster medium: simulations vs observations.    |
| 19.05 |                      | END OF THE SESSION  |

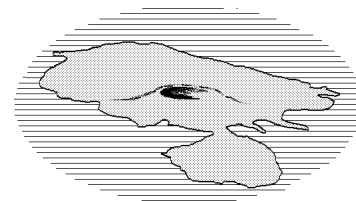
### INTERVAL

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Tuesday 29 Morning

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: KEVIN HURLEY

08.30	Marc RIBO	TeV Gamma-Ray Astrophysics.
09.05	Hendrik BARTKO	Highlights of Observations of VHE gamma ray sources with the MAGIC telescope
09.40	Ken EBISAWA	SUZAKU Highlights.
10.15		Coffee Break

Chairperson: NATALIE WEBB

10.45	Niels LUND	Highlights from JEM-X on INTEGRAL.
11.20	Thomas BOLLER	6 years of XMM/Newton & Chandra observations: what have we really learned?
11.55	Nicola MASETTI	X-ray and optical followup of gamma-ray (up TeV) sources: latest news.

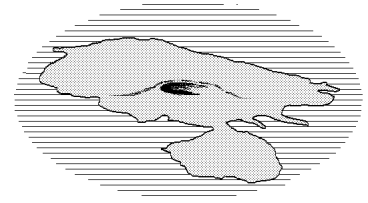
12.30 I N T E R V A L

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Tuesday 29 Afternoon

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: HENDRIK BARTKO

- |       |                  |   |
|-------|------------------|---|
| 17.00 | Filippo MANNUCCI | The case for two populations of progenitors for Type Ia supernovae. |
| 17.35 | Dong-Woo KIM     | Chandra Multiwavelength Project: Normal Galaxies.                   |
| 17.55 | Pepi FABBIANO    | Silent supermassive black holes.                                    |
| 18.30 | Nino PANAGIA     | SN 1987A: Twenty Years After.                                       |
| 19.05 | Katsuji KOYAMA   | SN 1006: an interesting remnant for SUZAKU satellite.               |

19.25 I N T E R V A L

### SPECIAL NIGHT SESSION

Chairperson: JOHN BECKMAN

- |       |                 |   |
|-------|-----------------|---|
| 22.00 | Daniele FARGION | Asteroid Deflection: How, where and when. |
|-------|-----------------|---|

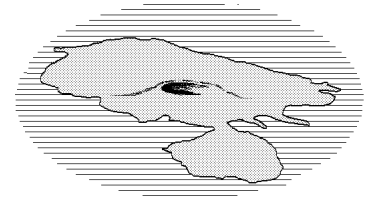
22.45 END OF THE SPECIAL SESSION

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Wednesday 30 Morning

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: KEN EBISAWA

08.30 Gottfried KANBACH High-Energy Pulsars: powerful electrodynamic accelerators in space.  
09.05 Mark FINGER Accreting Pulsars: A Review.  
09.40 Didier BARRET QPOs and mass of accreting neutron stars.  
10.00 Natalie WEBB How to experimentally constrain the equation of state of dense matter.

10.20 Coffee Break

Chairperson: MARK FINGER

10.50 Rosario IARIA Spectroscopy of binary system hosting Neutron Stars: the new era of Chandra and XMM.  
11.25 Kinwah WU Ultra-compact binaries -- masers, X-ray and gravitational waves?  
11.45 Gian Paolo MURTAS Correlation between signals from gravitational antennas and X-ray signatures in close binary systems.  
12.15 Wojtech SIMON Soft X-ray Transients: Long-term Activity.  
12.35 Monika BALUCINSKA-CHURCH The periodic X-ray bursters XB 1323-619 and GS 1826-238.  
12.55 Sylvain CHATY Obscured sources and Supergiant Fast X-ray Transients: new classes of high mass X-ray binaries.

13.15 I N T E R V A L

Wednesday 30 Afternoon

F R E E

Wednesday 30 Night

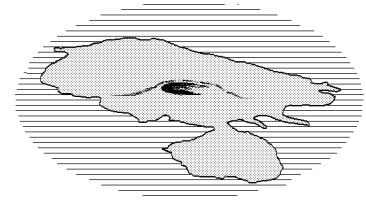
22.00 E T R U S C A N W I N E P A R T Y

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# FRASCATI WORKSHOP 2007

May 28 – June 2, Vulcano, Italy



## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Thursday 31 Morning

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: NIELS LUND

08.30	Nanda REA	Rotating Radio Transients: A review.
09.05	Lucien KUIPER	Hard X-ray sources as measured by the present generation X-ray experiments: X-ray pulsars, anomalous X-ray pulsars.
09.40	Kevin HURLEY	Soft Gamma Ray Repeaters.

10.15 Coffee Break

Chairperson: LUCIEN KUIPER

10.45	Gianluca ISRAEL	Transient Anomalous X-ray Pulsars.
11.20	Wolfgang KUNDT	Pulsar Physics without Magnetars.
11.40	Tanja KNEISKE	Gamma-ray Background: a review.
12.15	Filippo FRONTERA	The Cosmic X-ray Background at the peak of its emission: an accurate measurement with BeppoSAX and its consequences.

### Advance Talk of JET SOURCES & GAMMA-RAY BURSTS

12.35	Alvaro DE RUJULA	Canonical Behavior of the X-Ray Afterglows of Gamma-Ray Bursts.
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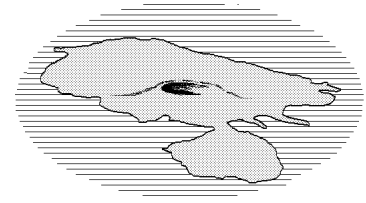
13.10 I N T E R V A L

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# FRASCATI WORKSHOP 2007

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Thursday 31 Afternoon

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: PEPI FABBIANO

17.00	Franco Giovannelli	Cataclysmic Variables: a review.
17.35	Christopher MAUCHE	The Multifrequency Behavior of Cataclysmic Variables.
18.10	Christopher MAUCHE	Multifrequency Observations of Rapid Oscillations in Cataclysmic Variables.
18.45	René HUDEC	Cataclysmic Variables with INTEGRAL.
19.10	Franco GIOVANNELLI	The controversial nature of SS Cygni.

19.30 I N T E R V A L

Thursday 31 Night

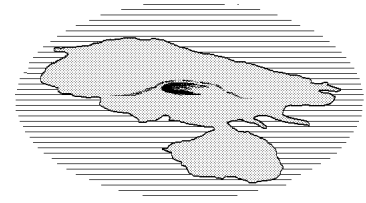
22.00 C O N C E R T I N V U L C A N O  
Sofia Mukhametova: Mezzo Soprano  
Maria Pinto: Pianoforte

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Friday 01 Morning

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: ARNON DAR

- 08.30 Kinwah WU General Relativistic Radiative Transfer  
of Emission from Relativistic Flows  
from Black Holes.
- 09.05 Bozena CZERNY Irradiated Accretion Disks.
- 09.40 Guennadi BISNOVATYI-KOGAN Black Hole Advective Accretion Disks.
- 10.00 Janusz ZIOLKOWSKI Mass of black holes in the Universe.

10.35 Coffee Break

Chairperson: BOZENA CZERNY

- 11.05 Joern WILMS Unity among Black Holes.
- 11.40 Bernd ASCHENBACH Measurements of mass and angular momentum of  
black holes.

12.00 END OF THE SESSION

### JET SOURCES & GAMMA-RAY BURSTS

Chairperson: WOLFGANG KUNDT

- 12.00 Daniele FARGION Gamma Ray Burst by Precessing Thin Jets Born  
by UHE Leptons.
- 12.35 Michael J. CHURCH The importance of radiation pressure in the  
launching of jets.

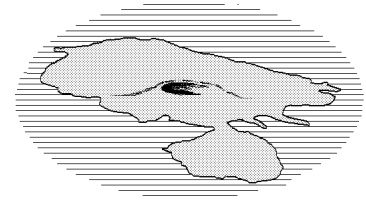
12.55 I N T E R V A L

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Friday 01 Afternoon

### JET SOURCES & GAMMA-RAY BURSTS

Chairperson: CHRISTOPHER MAUCHE

- |       |                           |   |
|-------|---------------------------|---|
| 17.00 | Giuseppe LAVAGETTO        | High resolution spectroscopy of LMC X-2 with XMM/Newton: a study of the first extragalactic Z-source. |
| 17.20 | Guennadi BISNOVATYI-KOGAN | Magnetorotational Supernovae With Jets.   |
| 17.55 | Diana HANNIKAINEN         | Multifrequency (INTEGRAL, SWIFT and RXTE) observations of microquasars.                               |
| 18.30 | Jim BEALL                 | Non-linear wave dynamics in the jet-ambient-medium interaction.                                       |
| 18.50 | Stefano COVINO            | A direct measurement of the relativistic expansion velocity of gamma-ray burst fireball.              |
| 19.10 | Keiichi MAEDA             | Supernovae and Gamma-Ray Bursts: Nucleosynthesis and Emission Processes.                              |

19.30 I N T E R V A L

### SPECIAL NIGHT SESSION

Chairperson: MONIKA BALUCINSKA-CHURCH

- |       |             |  |
|-------|-------------|--|
| 21.30 | Paolo PERSI | Astronomy from the Antarctica Plateau: The Dome Concordia Station. |
|-------|-------------|--|

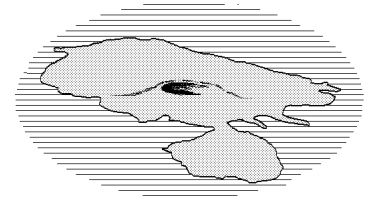
22.15 E N D O F S P E C I A L S E S S I O N

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## MULTIFREQUENCY BEHAVIOUR OF HIGH ENERGY COSMIC SOURCES

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Saturday 02 Morning

### JET SOURCES & GAMMA-RAY BURSTS

Chairperson: DIANA HANNIKAINEN

09.00 Arnon DAR SN 1987A after 20 years: II.  
09.35 Jim BEALL The importance of multifrequency emission  
from jets in astrophysics.

10.10 END OF THE SESSION

Coffee Break

### ONGOING EXPERIMENTS

Chairperson: JOERN WILMS

10.45 René HUDEC Lobster Eye Telescopes as X-ray All-sky  
monitors.  
11.00 René HUDEC Investigations of Optical Counterparts of  
High-Energy Sources with ESA Gaia.  
11.15 Michela USLENGHI The World Space Observatory Project WSO-UV.

11.30 END OF THE SESSION

### CONCLUDING REMARKS

Chairperson: THOMAS BOLLER

11.30 René HUDEC  
11.45 Janusz ZIOLKOWSKI  
12.00 Sergio COLAFRANCESCO

12.15 END OF THE SESSION

12.15 Franco GIOVANNELLI Concluding Address.

12.30 END OF THE WORKSHOP

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