TENTATIVE PROGRAM
(31st March 2011)

Sunday 22 Afternoon

15.30 REGISTRATION OF PARTICIPANTS
18.45 END OF REGISTRATION
19.15 WELCOME COCKTAIL PARTY
20.00 DINNER

Monday 23 Morning

08.00 REGISTRATION OF PARTICIPANTS
08.35 END OF REGISTRATION
08.40 BEGINNING of the WORKSHOP
08.40 Franco GIOVANNELLI Welcome Address

OPENING REMARKS
Chairperson: NINO PANAGIA

08.45 Franco GIOVANNELLI Multifrequency Behaviour of High Energy Cosmic Sources: A Review.
09.15 Giulio AURIEMMA The Physics of the Early Universe after the First Two Years of LHC.
09.45 Richard Conn HENRY Progress in Understanding the Diffuse UV Cosmic Background.
10.05 Sabrina CASANOVA Cosmic-Ray Barometers.
10.25 Coffee Break

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Monday 23 Morning

OPENING REMARKS

Chairperson: RICHARD CONN HENRY

10.55 Maxim KHLOPOV  Cosmic Sources from Dark Atoms of Composite Dark Matter.
11.25 Mª Dolores RODRIGUEZ-FRIAS  What We Can Infer from the Pierre Auger Observatory on Astrophysical Sources of Cosmic Rays?
11.45 Wolfgang KUNDT  Our Heliosphere Confined by Cosmic Rays.
12.15 Daniele FARGION  Deep Core and a New 20 GeV Neutrino Astronomy.
12.35 Susana IGLESIAS-GROTH  Identification of PAHs and Fullerenes in the Interstellar Medium.

13.05 END OF THE SESSION

INTERVAL

Monday 23 Afternoon

COSMOLOGY

Chairperson: PETER BIERMANN

17.00 Rafael REBOLO  The Quijote CMB Polarization Experiment: A Search for Primordial Gravitational Waves.
17.30 Marco REGIS  The CMB in an Inhomogeneous Universe.
17.50 Takaya NOZAWA  Supernovae as Sources of Dust in the Early Universe.
18.10 Keiichi MAEDA  Type Ia SN Explosion Mechanism and Implication for Cosmology.
18.30 Pol BORDAS  Large-Scale Emission from Fanaroff-Riley Galaxies.
18.50 Andrew PTAK  The Very Local Universe in X-rays.
19.10 Frank HABERL  X-ray Source Populations in Local Group Galaxies.

19.30 INTERVAL
Tuesday 24 Morning

COSMOLOGY

Chairperson: RAFAEL REBOLO

08.40 Guennady BISNOVATYI-KOGAN  Gravitational Lens: A Review.
09.10 Marco AJELLO  Galaxy Clusters in the SWIFT/BAT Era: A Review.
10.10 Vincenzo MAINIERI  Host Galaxies Properties of Obscured Quasars at z ~ 2: A Multiwavelength Approach.

10.30 END OF THE SESSION

Coffee Break

ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: MARCO AJELLO

11.00 Paolo PERSI  Herschel Observations of Star Forming Regions.
11.30 Anabella ARAUDO  Massive Protostars as Gamma-Ray Sources.
11.50 Lorenzo NATALUCCI  Cross-Calibration of X-ray/Soft Gamma-ray Instruments Using the HE Source In the Crab Nebula.
12.10 Paolo PERSI  The Crab Nebula in the Infrared.
12.30 Norbert SCHARTEL  XMM-Newton Highlights.

13.00  INTERVAL
## Tuesday 24 Afternoon

### ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: JOERN WILMS

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tr>
<td>17.00</td>
<td>Jean BALLET</td>
<td>Fermi Highlights.</td>
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<tr>
<td>17.30</td>
<td>Roland CROCKER</td>
<td>Fermi Bubbles in the Galactic Center.</td>
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<tr>
<td>17.50</td>
<td>Giuseppe DI SCIASCIO</td>
<td>Gamma-ray Astronomy with the ARGO-YBJ Experiment.</td>
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<tr>
<td>18.10</td>
<td>Immacolata DONNARUMMA</td>
<td>The Blazar Mrk 421: A Short Multifrequency Review.</td>
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<tr>
<td>18.30</td>
<td>Victor OKNYANSKIJ</td>
<td>The Seyfert Galaxy NGC 4151: A Short Multifrequency Review.</td>
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<tr>
<td>18.50</td>
<td>Frank RIEGER</td>
<td>Cen A as a Source of VHE-Gamma Rays and UHE Cosmic Rays.</td>
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<tr>
<td>19.10</td>
<td>Andreas ZEZAS</td>
<td>Multiwavelength Observations of Extragalactic SNRs.</td>
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19.30                          INTERVAL
## Wednesday 25 Morning

**ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES**

**Chairperson:** JEAN BALLET

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<tr>
<th>Time</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>08.40</td>
<td>Thomas BOLLER</td>
<td>AGN Review: The Strong Field Limit and Multiwavelength Synergy Prospects.</td>
</tr>
<tr>
<td>09.10</td>
<td>Luigi COSTAMANTE</td>
<td>AGNs in the VHE Gamma-Ray Era: A Review.</td>
</tr>
<tr>
<td>09.40</td>
<td>Krzysztof HRYNIEWICZ</td>
<td>The Origin of the Broad Line Region in AGNs.</td>
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<tr>
<td>10.10</td>
<td>Julia BECKER</td>
<td>Multifrequency Behaviour of Starburst Galaxies.</td>
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10.40 Coffee Break

**Chairperson:** THOMAS BOLLER

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<tr>
<td>11.10</td>
<td>Tapas Kumar DAS</td>
<td>On the Time Resolved QPOs in AGNs.</td>
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<tr>
<td>11.30</td>
<td>Martin TLUCZYKONT</td>
<td>Multiwavelength Observations of H.E.S.S. AGNs.</td>
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<tr>
<td>12.00</td>
<td>Michael CHURCH</td>
<td>Z-Track Sources: A Review.</td>
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<tr>
<td>12.30</td>
<td>Solen BALMAN</td>
<td>X-Ray Spectral Characteristics of LMXB Dippers.</td>
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<tr>
<td>12.50</td>
<td>Monika BALUCINSKA-CHURCH</td>
<td>Dipping vs Flaring in LMXB: Resolving the Controversy.</td>
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13.20 INTERVAL

## Wednesday 25 Afternoon

**F R E E**

## Wednesday 25 Night

22.00 **ETRUSCAN WINE PARTY**

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**Thursday 26 Morning**

**ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES**

Chairperson: JULIA BECKER

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<thead>
<tr>
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<tbody>
<tr>
<td>08.40</td>
<td>Peter BIERMANN</td>
<td>Supermassive Black Holes.</td>
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<tr>
<td>09.10</td>
<td>Ken EBISAWA</td>
<td>Suzaku Observations of Black Hole Binaries and AGNs.</td>
</tr>
<tr>
<td>09.40</td>
<td>Valenti BOSCH-RAMON</td>
<td>Multifrequency Behaviour of Microquasars in GeV-TeV Era: A Review.</td>
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<tr>
<td>10.10</td>
<td>Michael NOWAK</td>
<td>The Microquasar Cyg X-1: A Short Review.</td>
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<td>10.30</td>
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<td>Coffee Break</td>
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Chairperson: RENE HUDEC

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<tr>
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<tr>
<td>11.00</td>
<td>Sabina SABATINI</td>
<td>Cyg X-1 Observations with AGILE.</td>
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<tr>
<td>11.20</td>
<td>Joern WILMS</td>
<td>Polarization of the Hard Tail of Cyg X-1.</td>
</tr>
<tr>
<td>12.05</td>
<td>Janusz ZIOŁKOWSKI</td>
<td>Black Holes in Dormant X-Ray Transients.</td>
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<tr>
<td>12.35</td>
<td>Mauri VALTONEN</td>
<td>The Double Black Hole System OJ287.</td>
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Thursday 26 Afternoon

ASTROPHYSICS OF HIGH ENERGY COSMIC SOURCES

Chairperson: PIETRO UBERTINI

17.00 Isabel CABALLERO  X-Ray Pulsars: A Review.
18.00 Simon VOJTECH  Optical Monitoring of Binary X-Ray Sources.
18.30 Pere BLAY   Supergiant Fast X-ray Transient: An INTEGRAL View.
18.50 Mariafelicia DE LAURENTIS  Coalescing Binaries as Possible Standard Candles.
19.10 Pieter MEINTJES  Modeling the IC Gamma-ray Emission from The Be Pulsar Binary System 1259-63.

19.30 INTERVAL

Thursday 28 Night

MUSIC IN VULCANO

21.45 Opera

L’Historie du Soldat

Alessandro Perpich - Violin
Valentina Usai - Piano
Lisa Colosimo - Voice
Flavia Giovannelli - Voice

22.45 END OF CONCERT

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Friday 27 Morning

Chairperson: ISABELLE CABALLERO

08.40 Pietro UBERTINI  INTEGRAL Discovery of SFXT (Supergiant Fast X-ray Transient): A new Class of Accreting Binaries.

09.10 Ersin GOGUS  Soft Gamma Repeaters: An Overview.

09.40 Keiichi MAEDA  Core-Collapse Supernova Diversities: from the Weakest to Most Powerful Explosions.

10.10 Ralf NAPIWOTZKI  Runaway and Hypervelocity Stars: the Supernova Connection.

10.30 Coffee Break

Chairperson: ANABELLA ARAUDO

11.00 Nino PANAGIA  Unsolved Problems about Supernovae: From HST to SWIFT.

11.30 Satoru KATSUDA  Supernova Remnants: A Short Review of Recent X-ray Observations.

11.50 END OF THE SESSION

JET SOURCES & GAMMA-RAY BURSTS

Chairperson: ARNON DAR

11.50 James H. BEALL  Jets Interactions with the Ambient Media: A Review.


12.40 Ettore DEL MONTE  The Observation of GRBs with AGILE.

13.00 INTERVAL

Friday 27 Afternoon

Chairperson: PIETER MEINTJES

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### Schedule of Events

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<tr>
<td>16.30</td>
<td>Antonio de UGARTE-POSTIGO</td>
<td>GRBs in the SWIFT Era.</td>
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<tr>
<td>17.00</td>
<td>Stefano COVINO</td>
<td>X-shooter Observations of GRBs and GRB Host Galaxies.</td>
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<tr>
<td>17.30</td>
<td>Lorenzo AMATI</td>
<td>The Ep,j-Eiso Correlation and Fermi GRBs.</td>
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<tr>
<td>18.00</td>
<td>Daniele FARGION</td>
<td>GRBs and SGRs: Are They One Shoot Explosion Or Blazing Jets?</td>
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<tr>
<td>18.20</td>
<td>Eleonora TROJA</td>
<td>Precursors of Short GRBs.</td>
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<tr>
<td>18.40</td>
<td>Ruben SALVATERRA</td>
<td>The Farthest GRBs Similar to the Closest.</td>
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<tr>
<td>19.00</td>
<td>Leopoldo MILANO</td>
<td>Upper Limits of Gravitational-Wave Bursts Associated with GRBs.</td>
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<tr>
<td>19.20</td>
<td>Salvatore CAPOZZIELLO</td>
<td>Cosmography by GRBs.</td>
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### Saturday 28 Morning

**JET SOURCES & GAMMA-RAY BURSTS**

**Chairperson:** JAMES H. BEALL

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- Institute für Astronomie und Astrophysik, Karls Eberhard, Universität SAND 1, Tübingen, Germany
### Models of GRBs.
Bing ZHANG
08.40

### GRBs: What We Have Learnt?
Arnon DAR
09.00

### END OF THE SESSION
09.40

### ONGOING EXPERIMENTS

**Chairperson:** WOLFGANG KUNDT

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<tr>
<td>09.40</td>
<td>Jan TAUBER</td>
<td>The Planck Mission.</td>
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<td>09.55</td>
<td>Mario HAMUY</td>
<td>The CHilean Automatic Supernova SEarch</td>
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<td>10.10</td>
<td>René HUDEC</td>
<td>The Multifrequency Behaviour of HE Sources With Ultra Low-Dispersion Spectroscopy.</td>
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<td>Coffee Break</td>
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<tr>
<td>11.00</td>
<td>Takeshi TSURU</td>
<td>The ASTRO-H Mission.</td>
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<td>11.15</td>
<td>René HUDEC</td>
<td>X-ray Sky Monitoring with Lobster Eye Telescopes: Recent Progress.</td>
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<tr>
<td>12.00</td>
<td>Marco GARATTINI</td>
<td>Probing Gravity with the Proposed MAGIA, ILN and Lunette Lunar Mission.</td>
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<tr>
<td>12.15</td>
<td>Bruno Luigi MARTINO</td>
<td>An High Availability Data Storage Subsystem for the INTEGRAL Data Analysis.</td>
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### Saturday 28 Morning

**CONCLUDING REMARKS**

**Chairperson:** GIULIO AURIEMMA
12.30 Peter BIERMANN
12.40 Gennady BISNOVATYI-KOGAN
12.50 Janusz ZIOLKOWSKI

13.00 END OF THE SESSION

13.00 Franco GIOVANNELLI Concluding Address.

13.15 END OF THE WORKSHOP