

## Program

### ➤ November 9<sup>th</sup>

#### Museum of Classical Art of the Department of Classics, Rome University "La Sapienza"

- 9:00 Registration
- 9:30 Welcome addresses
- 10:00 Lectio Magistralis by **Prof. G. Bignami**, President of Italian Institute of Astrophysics : **"Science, society and cultures"**
- 11:00 Coffee break
- 11:15 Lectio Magistralis by **Prof. Roberto Buonanno**, President of the Italian Astronomical Society **"The Harmony of the Celestial Spheres"**
- 12:15 Lectio Magistralis by Prof. Sen. **Lucio Lombardi Satriani**, Accademia di Belle Arti di Roma **"Astronomy, Anthropology"**
- 13:15 Invited talk by Dr. Juan Antonio Belmonte, Instituto de Astrofísica de Canaria **"Orientatio ad Sidera (OAS): highlights of a decade of archaeoastronomical research in the Mediterranean region and beyond"**
- 13:45 Lunch
- **Session "Problems and Methods of Cultural Astronomy"**

14:15 – 14:35 D. Brown *Phenomenology of Shadow*

14:35 – 14:55 V. F. Polcaro *The Credibility of Archaeoastronomy: Suggestion From Pharmacology?*

14:55 – 15:15 M. A. Rappenglück *Cosmic Entomology: The Image and Function of Insects in Archaic Sky Watching and Cosmovisions*

15:15 – 15:35 J. Vit, M. A. Rappenglück *Looking through a telescope with an obsidian mirror: Would specialists of ancient cultures have been able to view the night sky using such an instrument?*

15:35 – 15:55 G. Zotti *Open Source Virtual Archaeoastronomy*

- 16:00 Coffee break

- **Session "Astronomy in Extra-European Cultures"**

16:15 – 16:35 J. Holbrook, J. de Prada-Samper *!Xam Skylore of the Karoo Desert, South Africa*

16:35 – 16:55 S. Iwaniszewski *Another Look at the Lunar Series from Dos Pilas and Naranjo*

16:55 – 17:15 J. McKim Malville *Animism and Reciprocity at Sky Watching Places*

17:15 – 17:35 R. Moyano *The Crossover Among the Incas in the Collasuyu*

17:35 – 17:55 B. M. Mak *Astral Science from the Near East to China in the late first millennium AD – Dorotheus in Pahlavī and Duli Yusi Jing in Chinese*

17:55 – 18:15 R. Neuhäuser, W. Rada, D. L. Neuhäuser *Newly found old Yemenite observations of Supernovae 1006 and 1604*

- **18:15 Welcome cocktail party**

### ➤ November 10<sup>th</sup>

#### Auditorium of the University Chapel

- **8:00-9:00 Posters Mounting**

- **Special Session on "Astronomy in Ancient Near East (Mesopotamia, Persia, Levant, Turkey) and Egypt, from the origins to 395 CE"**

9:00 – 9:20 J. A. Belmonte, M. C. Pérez Die, L. Díaz-Iglesias Llanos *Shrines of Ram-Headed Divinities and Canopus: Skyscaping at Herakleópolis Magna*

9:20 – 9:40 A. C. González-García, J. A. Belmonte, A. Polcaro *A diachronic analysis of monument orientation in the Levant: the Jordanian paradigm*

9:40 – 10:00 S. Gullberg *The Babylonian Astronomical Diaries: A Graphical Analysis of their Implied Reference System*

10:00 – 10:20 A. Jones *Eclipses in Greco-Roman Egypt: Trends in Observation, Prediction, and Interpretation*

10:20 – 10:40 D. Nadali, A. Polcaro *The sky from the high terrace: study on the orientation of the ziqqurat in ancient Mesopotamia*

10:40 – 11:00 E. Orrelle *Identifying transition in ritual power in the Neolithic of the Levant*

- 11:00 Coffee break

11:15 – 11:35 S. Pizzimenti *The Kudurrus and the Sky. Analysis and Interpretation of the Astral Symbols as Represented in Kassite Kudurrus Reliefs*

11:35 – 11:55 E. Ratson *Ideal Lunar Velocity*

11:55 – 12:15 A. Rodríguez Antón, J. A. Belmonte, A. C. González-García *Romans in Near East: Orientation of Roman towns and forts in modern Jordan*

12:15 – 12:35 S. Shinnar *Rabbinic Standards for Accuracy in Lunar Observation: Regulating the Calendar in the Mishnah Rosh Hashanah*

12:35 – 12:55 J. Steele *Evidence for the Practice of Astronomy and Astrology in the 'House of the āšipu' in Uruk*

12:55 – 13:15 L. Verderame *Pleiades in ancient Mesopotamia*

- 13:15 lunch
- **Session “Cultural Astronomy in Ancient Greece”**

14:00 – 14:20 E. Boutsikas *The orientation of Greek temples in sanctuaries of Asia Minor, Sicily and Cyprus*

14:20 – 14:40 M. Revello *The Sun of Homer*

14:40 – 15:00 L. Sims *Apollonian Delphi: how history comes to the aid of prehistory.*

- **Session “Cultural Astronomy in Ancient Italy and in Roman Empire”**

15:00 – 15:20 R. Hanna, G. Magli, A. Orlando *Astronomy and landscape in the Valley of the Temples of Akragas*

15:20 – 15:40 P. Littarru *Forty years of archaeoastronomical research in Sardinia*

15:40 – 16:00 A. Orlando, D. Gori *The Megalithic Temple of Diana on the Cefalù Rock (Sicily)*

- 16:00 Coffee break

16:15 – 16:35 M. Ranieri, F. Carnevale *Solstices at Sesto Fiorentino: an Investigation on Geometry and Alignments of the Tholos Tombs of the Etruscan Princes*

16:35 – 16:55 M. Rapisarda, M. Ranieri *A “Phoenician lighthouse” at Capo Gallo (Palermo)?*

16:55 – 17:15 I. Dupper *Landscape architectural research strategies to interpret Latium’s cultural landscape heritage, Italy: Research focus: Santuario della Fortuna Primigenia in Palestrina*

17:15 – 17:35 M. Monaco *The Temple B in Largo Argentina, Rome: CAD Analysis of The Ground Plan Reveals a Geometrical Circle-Pentagon-Circle Scheme*

17:35 – 17:55 L. Magini *Astronomy and Calendar in Ancient Rome, a Short Summary*

- **18:00 – 20:00 G. Zotti Tutorial: producing and configuring Stellarium landscapes for orientation studies**

## ➤ November 11<sup>th</sup>

### Auditorium of the University Chapel

- **Session “Cultural Astronomy in Ancient Italy and in Roman Empire”**

9:00 – 9:20 M. De Franceschini, G. Veneziano *Archaeoastronomy in the Mausoleum of Hadrian in Rome*

9:20 – 9:40 D. Espinosa Espinosa, A. C. González-García, M. V. García Quintela *On the Orientation of Roman Towns in the Limes Germanicus*

9:40 – 10:00 A. C. González-García, M. V. García Quintela *Celtic Solar Orientation of Lugdunum Convenarum*

10:00 – 10:20 N. Lanciano, P. Virgili *The urban set of the Pantheon and the Mausoleum of Augustus in Rome, between architectural and astronomical symbolism.*

10:20 – 10:40 M. Ranieri, M. Monaco *From Desgodetz to Laser Scanner: Measures and Geometries in the Plan of the Pantheon*

10:40 – 11:00 S. Sclavi, F. Carnevale, M. Monaco, S. Gaudenzi, M. Ranieri, V. F. Polcaro, C. Scatigno *The Orientation of Mithraea In Ostia Antica*

11:00 – 11:20 V. Tiede *Ara Pacis Augustae: An Astro-Archaeological Analysis*

- 11:20 Coffee break
- **Session “Cultural Astronomy in Ancient Iberian Peninsula and Canary Islands”**

11:35 – 11:55 C. Esteban *Equinox Markers in Protohistoric Iberian Sanctuaries*

11:55 – 12:15 M. Pérez, A. Rodríguez Díaz, I. Pavón Soldevila, D. M. Duque Espino *A Orientalizing Ritual Building in Aliseda (Cáceres, Spain)*

12:15 – 12:35 M. Pérez Gutierrez, A. Ruiz Rodríguez, M. Molinos Molinos *The Iberian urban sanctuary of Puente Tablas (Jaén, España)*

12:35 – 12:55 F. Silva *The Prehistoric Skyscapes western Iberian project: an update*

12:55 – 13:15 L. Sims *Praile Aitz 1: A Basque Magdalenian lunar-solar cave at 15,500 BP?*

13:15 – 13:35 A. Ulla, F. Braña Rey, E. Pérez Fernández *Application of cultural astronomy methods to High School by means of studying astronomical decorations and orientations of hórreos in two locations of Galicia (Spain). Statistics, comparison and educational conclusions.*

- 13:35 lunch

- **Session “The Sky Bear”**

14:05 – 14:25 E. Antonello *Sky simulations for the Paleolithic epoch*

14:25 – 14:45 M. Ridderstad *The Bear and the Year: the Origin of the Finnish Late Iron Age Folk Calendar and Its Connection to the Bear Cult*

14:45 – 15:05 D. Gunzburg *Time pursued by a Bear: Ursa Major and stellar time-telling in the Paduan Salone*

15:05 – 15:25 R. Frank *Sky Bears research: Implications for “Cultural Astronomy”*

- **Session “Cultural Astronomy in Ancient Northern Europe and British Islands”**

15:25 – 15:45 P. Armstrong *Mesolithic and the Neolithic Skyscapes in Western Britain*

15:45 – 16:05 L. Henty *Continuity or change? A microscopic scale analysis of monuments and ritual in Aberdeenshire*

- 16:05 Coffee break

16:15 – 16:35 C. Maumené *The Gundestrup cauldron : is this the key to the enigma?*

16:35 – 16:55 M. Ridderstad *Sacred or Profane Spaces – Comparing the Orientations of the Neolithic Housepits and the Giants’ Churches of Ostrobothnia*

16:55 – 17:15 V. Tumėnas *The links in attributes between the Baltic Thunder God Perkūnas and his analogues - Jupiter and Zeus*

- **Session “Cultural Astronomy in Ancient Eastern Europe”**

17:15 -17:35 O. Kuzmanovska, J. Stankovski *Lunar Markers of the Peak Sanctuary Kokino*

17:35 – 17:55 F. Stanescu *The Small Round Sanctuary of the Sacred Terrace of Sarmizegetuza Regia, Romania. The Problem of Number 13*

17:55 – 18:15 A. Stoev, P. Maglova, M. Spasova *Late Chalcolithic solar-chthonic rock-cut structures for time measuring in the Eastern Rhodopes, Bulgaria*

- **18:15 – 20:00 G. Zotti Tutorial: producing and configuring Stellarium landscapes for orientation studies**

➤ **November 12<sup>th</sup>**

**Auditorium of the University Chapel**

9:00 - 9:20 A. Mickaelian *Armenian Archaeoastronomy and Astronomy in Culture*

9:20 – 9:40 S. V. Farmanyan *Ancient Cosmology in Armenian Highland*

- **Session “Cultural Astronomy in Christian Churches”**

9:40 – 10:00 B. Vilas Estévez, A. C. González-García *Light and Shadow in Santiago: the Cathedral of Saint James and its orientations*

10:00 – 10:20 M. Incerti, G. Lavorati, S. Iurilli, U. Velo *Survey, archaeoastronomy and communication: the Mausoleum of Teodorico in Ravenna (Italy)*

10:20 – 10:40 M. García Quintela, A. C. González-García *From Hagiography to Celtic Cosmology: the Early Years of Santa Mariña in the Lagoon of Antela (Ourense, NW Spain) and the Limici Celtic heritage*

10:40 – 11:00 E. Spinazzè *Alignments at the patron saint’s day of sacral medieval buildings and the light path inside the church at the saint’s day*

- 11:00 Coffee break

11:15 – 11:35 M. Zedda *A Statistical Analysis on the Orientation of the Romanesque Churches of Sardinia, Corsica and Tuscany*

11:35 – 11:55 S. Draxler, M. E. Lippitsch *Astronomy in the medieval Liber Floridus*

11:55 – 12:15 B. Brady *Welsh Monastic Skyscapes: the design and results of a pilot project*

12:15 – 12:35 B. Brady *The Western Orientation of the Solstitial Churches of Gwynedd, Wales.*

- 12:35 lunch

### 13:00 Poster dismounting

- 14:00 – 19:00 **Half day excursion to Rome Imperial Fora**

### ➤ November 13<sup>th</sup>

#### **Museum of Classical Art of the Department of Classics, Rome University “La Sapienza”**

9:00 – 9:20 S. Bartolini, M. Pierozzi *Astronomy and Solar Symbology in the Basilica of San Miniato al Monte and Florence Baptistery in Florence*

9:20 – 9:40 B. Benfer *Light Beams and Architecture Marked Celestial Events in Colonial Churches and Missions in New Spain and Perú*

- **Session “Cultural Astronomy in Renaissance and Modern Epoch”**

9:40 – 10:00 G. Gandolfi *Astrology, Prophecy and the birth of Modern Science seen through the Lenses of Renaissance Art*

10:00 – 10:20 N. Campion *Astronomy and Culture in the Eighteenth Century: Isaac Newton’s influence on the Enlightenment and Politics.*

10:20 – 10:40 L. Tirapicos *The old and the new Rome: Francesco Bianchini’s astronomical exchanges with the court of Lisbon*

- **Session “Cultural Astronomy in Contemporary Epoch”**

10:40 – 11:00 A. Adamo *Sound is the night*

- 11:00 Coffee break

11:15 - 11:35 A. Adamo *Where telescopes cannot (yet) see*

11:35 – 11:55 H. Gropp *Toward one date: The Easter date(s)*

11:55 – 12:15 R. Ndlovu *Analysing Education as a variable in “the Sky in Our Lives Survey”*

- 12:15 – 13:30 **Posters discussion**
- 13:30 lunch
- 14:00 – 15:45 **Round Table: What is 'cultural astronomy' today?**
- 15:45 Coffee Break
- 16:00-18:00 **SEAC General Assembly**
- **20:30 Conference dinner**

### November 14<sup>th</sup> - 15<sup>th</sup> : Post Conference Tour

#### **Accepted Posters**

1. A. Adamo *Looking the sky in the face*
2. E. Amsterdam *Classical constellation patterns on the ground made up by artificial dwelling hills in Frisia, The Netherlands*
3. R. Assasi *Astronomical alignment of Roman quadrifrons structures*
4. N. Ayash *The Stars in the Minoan Religion*
5. N. Bekbassar *Twelve year’s cyclic calendar in numismatics of the Golden Horde and Ilkhanate*
6. A. Belenkiy *Easter 414 in Alexandria: Hypatia’s Murder Case Reopened*
7. D. Brown, Ana Souto *Skyscapes of Clifton Campus - Exploring Nocturnal Environments & Sky with Stellarium*
8. M.P. Burillo Quadrado, F. Burillo *Coelum Empireum, Habitaculum Dei and souls’ destination*
9. B. Castro, I. Liritzis, A. Nyquist *Determining the Oracular Time: Comparative Astronomical Measurements of Apollonian Temples*
10. C. Clausen *Inter-visibility, Sightlines and Alignments*
11. M. Codebò, H. de Santis, G. L. Pesce *A stone observatory at Bric Pinarella (Italy)*
12. P. Colona *Ixion, an astronomical interpretation*
13. J. de Jager *The Pyramids of Ancient Egypt - Paradox and Symmetry*
14. M.D. Duarte da Cunha *A bull on the water (astronomy and navigation in the Eastern Mediterranean by Minoans in MM III period 1,600 BC and 1,200 LM III ACC)*
15. C. Esteban, L. B. de Lugo Enrich *Venus and the Temples of Astarte across the Mediterranean*

16. C. Esteban, D. Iborra Pellín *Archaeoastronomy in Bronze Age Tumular Tombs and Settlements of La Mancha (Spain)*
17. N. L. Furbee *Disarticulated Dual Seasons and Maya Cosmology*
18. G. Henriksson *King David's Altar dated by the appearance of comet Encke in 964 BC*
19. R. Herrera *Sundials and Some Other Astronomical Instruments to Measure the Sky*
20. S. Ivanova, A. Raduncheva, V. Koleva, D. Kolev *Rock Sites in the Eastern Rhodopes: Archaeology and Astronomy*
21. M. Koepl *A Calendar-astronomical Explanation of Homer's Odyssey*
22. A. Kuzmin *The Astronomical Birth of Napier's Logarithmics*
23. G. Latura *The Mysteries of Eleusis & the Zodiacal Light*
24. A. Mulas, M. P. Zedda *Orientation of the Sardinian Nuraghic "Huts of Reunions"*
25. A. V. Mushich-Gromyko *Archaic Astronomical Slavic Concepts and their Reflection in the Metrics of the Textile*
26. A. Orlando, M.T. Magro, M. S. Scaravilli *The oriented altars of Pizzicata Rocks and the rocky sites of Alcantara Valley*
27. A. Orlando, D. Tanasi *Rediscovering the Maltese temple of Borġ in-Nadur*
28. R. Park *Damnatio ad astra on the Dendera Zodiac*
29. M. Pérez Gutierrez, D. Bea Castaño, J. Diloli Fons, J. Vila Llorach, M. Prades Painous *La Gessera: an Iberian building for worship?*
30. R. Perez-Enriquez, J. Galindo Trejo *Basis of a Gnomonic Paradigm in Mesoamerica: the Case of Mayapan*
31. S. Rothwangl *Heaven upon Earth: Educational model of the solar system on a scale of 1:1 billion*
32. M. Shaltout *Amon Temple in Khargha Oasis (Egypt) and illumination of the sanctuary two times every year by the rising Sun*
33. M. Shaltout *Did the ancient Egyptians observed the explosive stars (Supernovae)?*
34. A. Stoev, P. Maglova *Research project "Astronomical orientations and geophysical anomalies of trapezoidal niches in the Eastern Rhodopes, Bulgaria": in search of an international partnership*
35. A. Stoev, P. Maglova, V. Markov, M. Spasova *Prehistoric rock sanctuary with arch near the village of Kovachevitsa, Bulgaria: spatial orientation and solar projections*
36. M. Zedda *Hypothesis about a Astronomical System of Ligure Apuan in Garfagnana*
37. B. Zlatev *On the Value of Proclus' Perfect Year and Its Meaning*

### **G. Zotti Tutorial: producing and configuring Stellarium landscapes for orientation studies**

Georg Zotti will offer a workshop about creation and configuration of calibrated landscape panoramas for use with Stellarium. Attendands must bring their own notebooks (please no netbooks, but full-size systems. Minimum suggested: Core i3 or equivalent, Graphics: Intel HD or NVidia or AMD Radeon with OpenGL 3.0 or better, 4GB RAM, screen should be 1366x768 or larger, FullHD recommended).

For participation we need to know how many will attend as Georg needs to prepare and bring lecture note CDs/DVDs with sample images and calibration images for which he will ask for €15.- from each workshop participant.

Interested registered attendants (limited to 30) should write to me ([vitofrancesco.polcaro@iaps.inaf.it](mailto:vitofrancesco.polcaro@iaps.inaf.it)) until October 15th. Please, confirm your participation to this workshop as soon as possible: only the first 30 applications in order of arrival time will be accepted.

Registered participants will receive email before conference about free and/or open-source software they have to download and install before the workshop starts.