



SEAC 2015 ASTRONOMY IN PAST AND PRESENT CULTURES

➤ November 9th

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

- 9:00 - 9:30 Registration and Posters Mounting
- 9:30 – 10:00 Welcome addresses: dr. M. A. Rappenglück, SEAC President; prof. Roberto Masiani, Deputy Vice-Chancellor of the Roma "La Sapienza" University, Prof. Stefano Asperti, Dean of the Faculty of Humanities.
- 10:00 Lectio Magistralis by Prof. Roberto Buonanno, President of the Italian Astronomical Society "The Harmony of the Celestial Spheres"
- 11:00 – 11:30 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"
- 11:30 Coffee break
- 11:45 Lectio Magistralis by Prof. Sen. Lucio Lombardi Satriani, Accademia di Belle Arti di Roma "Astronomy, Anthropology"
- 13:00 Lunch
- Session "Problems and Methods of Cultural Astronomy"

Chairman: Giulio Magli

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"

Chairman: Elio Antonello

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*

- 18:00 Welcome cocktail party

➤ November 10th

Auditorium of the University Chapel

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

Chairman: Juan Antonio Belmonte

9:00 – 9:20 E. Orrelle *Identifying transition in ritual power in the Neolithic of the Levant*

9:20 – 9:40 J. Steele *Evidence for the Practice of Astronomy and Astrology in the ‘House of the āšipu’ in Uruk*

9:40 – 10:00 D. Nadali, A. Polcaro *The sky from the high terrace: study on the orientation of the ziqqurat in ancient Mesopotamia*

10:00 – 10:20 L. Verderame *Pleiades in ancient Mesopotamia*

10:20 – 10:40 S. Pizzimenti *The Kudurrus and the Sky. Analysis and Interpretation of the Astral Symbols as Represented in Kassite Kudurrus Reliefs*

10:40 – 11:00 S. Gullberg *The Babylonian Astronomical Diaries: A Graphical Analysis of their Implied Reference System*

- **11:00 Coffee break**

Chairman: John Steele

11:15 – 11:35 J. A. Belmonte, M. C. Pérez Die, L. Díaz-Iglesias Llanos *Shrines of Ram-Headed Divinities and Canopus: Skyscapes at Herakleópolis Magna*

11:35 – 11:55 A. C. González-García, J. A. Belmonte, A. Polcaro *A diachronic analysis of monument orientation in the Levant: the Jordanian paradigm*

11:55 – 12:15 E. Ratson *Ideal Lunar Velocity*

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

12:55 – 13:15 A. Jones *Eclipses in Greco-Roman Egypt: Trends in Observation, Prediction, and Interpretation*

- **13:15 lunch**

- **Session “Cultural Astronomy in Ancient Greece”**

Chairperson: Mary Blomberg

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.*

15:00 – 15:20 B. Castro, I. Liritzis, A. Nyquist *Determining the Oracular Time: Comparative Astronomical Measurements of Apollonian Temples*

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

Chairman : Marco García Quintela

15:20 – 15:40 R. Hanna, G. Magli, A. Orlando *Astronomy and landscape in the Valley of the Temples of Akragas*

15:40 – 16:00 P. Littarru *Forty years of archaeoastronomical research in Sardinia*

- **16:00 Coffee break**

16:15 – 16:35 A. Orlando, D. Gori *The Megalithic Temple of Diana on the Cefalù Rock (Sicily)*

16:35 – 16:55 M. Ranieri, F. Carnevale *Solstices at Sesto Fiorentino: an Investigation on Geometry and Alignments of the Tholos Tombs of the Etruscan Princes*

16:55 – 17:15 M. Rapisarda, M. Ranieri *A “Phoenician lighthouse” at Capo Gallo (Palermo)?*

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*

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

➤ **November 11th**

Auditorium of the University Chapel

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

Chairman: Nick Campion

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”**

Chairman: Cesar Gonzales Garcia

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”**

Chairperson: Roz Frank

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”**

Chairman: Lionel Sims

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. Tumēnas *The links in attributes between the Baltic Thunder God Perkūnas and his analogues - Jupiter and Zeus*

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

Chairperson: Penka Stoeva

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

17:35 – 17:55 A. Stoev, P. Maglova, M. Spasova *Late Chalcolithic solar-chthonic rock-cut structures for time measuring in the Eastern Rhodopes, Bulgaria*

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

➤ **November 12th**

- 10:00 – 13:00 **Half day excursion to Rome Imperial Fora and Coliseum**

Auditorium of the University Chapel

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

Chairperson: Penka Stoeva

14:00 – 14:20 A. Mickaelian *Armenian Archaeoastronomy and Astronomy in Culture*

14:20 – 14:40 S. V. Farmanyan *Ancient Cosmology in Armenian Highland*

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

Chairman: P. Jean-Paul Hernandez SJ

14:40 – 15:00 B. Vilas Estévez, A. C. González-García *Light and Shadow in Santiago: the Cathedral of Saint James and its orientations*

15:00 – 15:20 M. Incerti, G. Lavorati, S. Iurilli, U. Velo *Survey, archaeoastronomy and communication: the Mausoleum of Teodoric in Ravenna (Italy)*

15:20 – 15:40 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*

15:40 – 16:00 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*

- **16:00 Coffee break**

16:15 – 16:35 M. Zedda *A Statistical Analysis on the Orientation of the Romanesque Churches of Sardinia, Corsica and Tuscany*

16:35 – 16:55 B. Brady *Welsh Monastic Skyscapes: the design and results of a pilot project*

16:55 – 17:15 B. Brady *The Western Orientation of the Solstitial Churches of Gwynedd, Wales.*

17:15 – 17:35 S. Bartolini, M. Pierozzi *Astronomy and Solar Symbolism in the Basilica of San Miniato al Monte and Florence Baptistery in Florence*

17:35 – 17:55 B. Benfer *Light Beams and Architecture Marked Celestial Events in Colonial Churches and Missions in New Spain and Perú*

17:55 – 18:15 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*

➤ **November 13th**

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

- **Session “Astronomy in Medieval texts”**

Chairman : Vito Francesco Polcaro

9:00 – 9:20 S. Draxler, M. E. Lippitsch *Astronomy in the medieval Liber Floridus*

9:20 – 9:40 R. Neuhäuser, W. Rada, D. L. Neuhäuser *Newly found old Yemenite observations of Supernovae 1006 and 1604*

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

Chairman: Manuela Incerti

10:00 – 10:20 G. Gandolfi *Astrology, Prophecy and the birth of Modern Science seen through the Lenses of Renaissance Art*

10:20 – 10:40 N. Champion *Astronomy and Culture in the Eighteenth Century: Isaac Newton's influence on the Enlightenment and Politics.*

10:40 – 11:00 L. Tirapicos *The old and the new Rome: Francesco Bianchini's astronomical exchanges with the court of Lisbon*

- **11:00 Coffee break**

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

Chairperson: Jarita Holbrook

11:15 – 11:35 A. Adamo *Where telescopes cannot (yet) see: Saturn and the Moon as “seen” by space artists*
 Scriven Bolton, Lucien Rudaux, Étienne Trouvelot, Chesley Bonestell
 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**
- **13:30 Poster dismounting**
- 14:00 – 15:45 **Round Table: What is 'cultural astronomy' today?**

Chairman: Michael A. Rappenglück, SEAC President. Participants: Roslyn Frank (University of Iowa), Stanislaw Iwaniszewski (Universidad Nacional Autónoma de México), Vito F. Polcaro (Institute of Space Astrophysics and Planetology, INAF), Giangiacomo Gandolfi (Rome Planetarium), Alberto Scuderi (Vice-president of the Italian Archaeological Groups)

- **15:45 Coffee Break**
- 16:00-18:00 **SEAC General Assembly**
- **20:30 Conference dinner**

November 14th - 15th : Post Conference Tour

Posters

1. A. Adamo *Sound is the night*
2. A. Adamo *Looking the sky in the face*
3. E. Amsterdam *Classical constellation patterns on the ground made up by artificial dwelling hills in Frisia, The Netherlands*
4. R. Assasi *Astronomical alignment of Roman quadrifrons structures*
5. N. Ayash *The Stars in the Minoan Religion*
6. N. Bekbassar *Twelve year's cyclic calendar in numismatics of the Golden Horde and Ilkhanate*
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. C. Clausen *Inter-visibility, Sightlines and Alignments*
10. M. Codebò, H. de Santis, G. L. Pesce *A stone observatory at Bric Pinarella (Italy)*
11. P. Colona *Ixion, an astronomical interpretation*
12. I. De Angelis, T. Bosco, A. Altamore *Under The Same Sky: An Italian approach to Astronomy for the Developing World*
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. L. Lombardi, L. Ruggiero, L. Fabrizi, M. Chirri *Rome is star shaped: STAR, an APP for the spread of Cultural Astronomy*
25. A. Mulas, M. P. Zedda *Orientation of the Sardinian Nuraghic “Huts of Reunions”*

26. A. V. Mushich-Gromyko *Archaic Astronomical Slavic Concepts and their Reflection in the Metrics of the Textile*
27. A. Orlando, M.T. Magro, M. S. Scaravilli *The oriented altars of Pizzicata Rocks and the rocky sites of Alcantara Valley*
28. A. Orlando, D. Tanasi *Rediscovering the Maltese temple of Borġ in-Nadur*
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. F. Stanescu *The Small Round Sanctuary of the Sacred Terrace of Sarmizegetuza Regia, Romania. The Problem of Number 13*
33. 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*
34. A. Stoev, P. Maglova, V. Markov, M. Spasova *Prehistoric rock sanctuary with arch near the village of Kovachevitsa, Bulgaria: spatial orientation and solar projections*
35. M. Zedda *Hypothesis about a Astronomical System of Ligures Apuan in Garfagnana*
36. B. Zlatev *On the Value of Proclus' Perfect Year and Its Meaning*