



## **ROAD TO THE STARS Programme**

### **Monday 18 Morning: LAND- AND SKYSCAPES**

08:00 Open Register at Conference Venue / Poster mounting

08:45-9:15 Welcome address

- Juan Viaño Rey, Rector of Universidade de Santiago
- Michael Rappenglück, SEAC President
- Juan A. Belmonte, ISAAC President Elect
- Gary Wells, INSAP Coordinator
- A. César González-García, LOC and SOC Chairman

09:15-13:30 **First Session.** *Chairmen César González-García / Marco García Quintela*

09:15-09:45 **Opening Talk**, Prof. Felipe Criado Boado, *Skies on the earth: from megalithic cultural astronomy to the European Association of Archaeologists*

09:45-10:00 Fabio Silva. *Inferring Alignments 2: a practical application of the maximum likelihood principle*

10:00-10:15 Lionel Sims. *Averting cosmic collapse: dual and reversible principles in prehistoric monument complexes*

10:15-10:30 Frank Prendergast. *Cruciform architecture in Western European Neolithic passage tombs — a preliminary spatial analysis and cultural assessment*

10:30-10:45 Cecilia Dal Zovo and A. César González-García. *The path of the spirits: the material and astronomical heritage of stone rows in the Eastern Altai Mountains, Mongolia*

10:45-11:00 Bradley E. Schaefer. *The Utter Failure of the Lunar Standstill Myth in Archaeoastronomy*

11:00-11:05 Panel Discussion

11:05-11:35 *Poster Visiting and Coffee break*

11:35-11:50 Liz Henty. *Sunhoney Recumbent Stone Circle: Exception or Template?*

11:50-12:05 David Fisher. *Stone Rows of the Preseli Mountains*

12:05-12:20 Victor Reijjs. *On the road to understand possible archaeoastronomy around Orkney: Maeshowe, Ness of Brodgar and Breckness*

12:20-12:35 Frédéric Heller et al. *From the ground to the stars: Early Bronze Age postholes alignments in Linsmeau showing a possible astronomical intent*

12:35-12:50 Andrea Orlando, Sebastiano Tusa & Davide Gori. *The prehistoric villages of the Aeolian archipelago and Milazzo: astronomy and landscape (I)*

12:50-13:05 Alberto Scuderi et al. *A new hierophany at Monte Crocchia (Basilicata)*

13:05-13:20 Munirah Almushawah. *An Archaeoastronomical approach to the Megalithic Sites of Saudi Arabia*

13:20-13:30 Panel Discussion

13:30-15:00 *Free Lunch-time*



## Monday 18 Afternoon: ANCIENT ASTRONOMIES

15:00-19:25 **Second Session.** *Chairman Julio Navarro*

15:00-15:15 César Esteban. *Astronomy and Ritual in the Protohistory of Southern Iberian Peninsula*

15:15-15:30 Marco García Quintela & A. César González-García. *The Baroña Hillfort rocky sanctuary (Porto do Son, A Coruña, Spain) as a shifting device among the world layers of the Celtic Cosmology*

15:30-15:45 Alexey Stoev, Penka Maglova and Mina Spasova. *Evolution of astronomical facilities and practices in ancient Thracia.*

15:45-16:00 Marc Frincu and Ioana Giurginca. *Revisiting the Neolithic Sanctuary at Parta Romania: New and Old Archaeoastronomical Considerations*

16:00-16:15 Emília Pasztor. *The archaeology of light – celestial symbols of the European Bronze Age*

16:15-16:30 Manuel Pérez Gutiérrez et al. *Astronomy and Cartography in Benahoare: an orientated map of the Canary island of La Palma in an ancient petroglyph*

16:30-16:45 Julio Cuenca Sanabria et al. *The ‘Almogaren’ of Risco Caído: the lost astronomical sanctuary of the ancient Canarians*

16:45-16:55 Panel Discussion

16:55-17:25 *Poster Visiting and Coffee break*

17:25-17:45 **Invited Talk:** John Steele. *The Development of the Babylonian Zodiac*

17:45-18:00 Rita Gautschy. *The lunar calendar and its possible impact on Egyptian Old Kingdom Chronology*

18:00-18:15 Mary Blomberg and Göran Henriksson. *Lux ex oriente or a new source of light in the Dark Ages of Greece*

18:15-18:30 Efrosyni Boutsikas. *Ancient Greek religious spaces as arenas of a shared experience of the cosmos*

18:30-18:45 Vance Tiede. *ΒΩΜΟΣ ΔΟΔΕΚΑ ΘΕΩΝ / Altar of the Twelve Gods: an astro-archaeological analysis*

18:45-19:00 Fenny Smith. *Hypatia of Alexandria (c.355-415 AD), teacher of philosophy*

19:00-19:15 Sussane Hoffmann. *The genesis of Hipparchus’s celestial globe – reconstructing his work by means of modern computational astronomy and analysing possible idols and sources*

19:15-19:25 Panel Discussion

20:00 *Welcome cocktail, reception and opening of art exhibition at Fonseca College*



## Tuesday 19 Morning: ANTHROPOLOGY OF THE SKY

09:00-13:05 **Third Session.** *Chairwomen Jarita Holbrook / Roz Frank*

09:00-09:15 Edmundo Edwards, Barthelemy d'Ans & Alexandra Edwards.

*Consolidation of the Rapanui Astronomy Concept Inventory & Re-appraisal of Applied Astronomic Observation at Papa Ui Hetu'u, Rapa Nui*

09:15-09:30 Alejandro M. López. "Natives' knocking on Heaven's doors": Conflicts between international astronomical projects and local communities

09:30-09:45 Akira Goto. *Skylore of indigenous hunter-gatherers of northern Japan: house and burial orientations of Hokkaido Ainu.*

09:45-10:00 Roslyn M. Frank. *In search of the indigenous origins of the pilgrimage route of Santiago: A fusion of skyscape and landscape*

10:00-10:15 Reinhard Mussik. *Could the 'Sky Path' in Saxony-Anhalt establish a modern pilgrimage route?*

10:15-10:30 Annette S. Lee. *Interdisciplinary, Intercultural, Community-Based Education Practices at the Intersection of Art-Science-Culture*

10:30-10:45 Sona V. Farmanyan. *Astronomical Knowledge in Armenian Riddles*

10:45-11:00 Nurul Fatini Jaafar. *Sky Lore of Orion and Its Neighbours in the Malay Archipelago*

11:00-11:10 Panel Discussion

11:10-11:40 *Poster Visiting and Coffee break*

11:40-12:00 **Invited Talk:** Duane Hamacher. *To the Sky and Back: Philosophical and symbolic exploration of cosmic spirit-travel in Indigenous Australian cultures.*

12:00-12:15 Robert S. Fuller. *The Astronomy of the Aboriginal Peoples of Australia's Sydney Basin*

12:15-12:30 Trevor M. Leaman & Duane Hamacher. *Application of a methodology for testing horizon astronomy in Aboriginal Cultural Sites: a Case Study*

12:30-12:45 Jarita Holbrook. *Astronomy Development and Filmmaking in the Karoo*

12:45-13:00 Lynda Nutter and Jill Thompson-White. *Ancient Chinese Observatories in Australia and the Venus transit A.D. 1275*

13:00-13:05 Panel Discussion

13:05-15:00 *Free Lunch-time*



## Tuesday 19 Afternoon: FROM ROME TO SANTIAGO

15:00-18:55 **Fourth Session.** *Chairman Fabio Silva*

15:00-15:20 **Invited Talk:** Andrea Rodríguez-Antón et al. *An archaeoastronomical approach to Roman urbanism: orientation of Roman settlement across the Empire.*

15:20-15:35 A. César González-García & Marco V. García Quintela. *Roman or Gaulic: Orientation as a footprint of cultural identity?*

15:35-15:50 David Espinosa, A.César González, Marco G. Quintela. *First results on the urban orientation of Colonia Ulpia Traiana (Xanten, Germany)*

15:50-16:05 Grace Cassar. *Sky- and landscape in Madinat al-Zahra, Córdoba, Spain*

16:05-16:10 Panel Discussion

16:10-16:25 V. Francesco Polcaro. *The unintentional winter solstice hierophany in the "Santi Angeli Custodi" church in Rome and its implications*

16:25-16:40 Silvia Motta & Adriano Gaspani. *The case of the two churches of Sant'Apollinare in Piedmont (Italy): can archaeoastronomy help to identify which of them is the Templar one?*

16:40-16:55 Eva Spinazzè. *'De quattuor partibus mundi': Medieval sacred buildings on the Via Francigena. Orientation and light incidence in solstitial churches*

16:55-17:00 Panel Discussion

17:00-17:30 *Poster Visiting and Coffee break*

17:30-17:45 Themis G. Dallas. *On the Orientation of Early Christian Churches in Praefectura Illyricum*

17:45-18:00 Manuela Incerti and Gaia Lavoratti. *Survey, archaeoastronomy and communication: the Mausoleum of Galla Placidia in Ravenna*

18:00-18:15 Benito Vilas-Estevez, Ruth Varela & A. César González-García. *Previous tradition? Coincidence? Design? How it was possible to create the illumination effects at the Cathedral of Saint James (Galicia, Spain)?*

18:15-18:30 Alejandro Ganguí & Juan A. Belmonte. *The development of a utopian city? Land and Skyscape in San Cristobal de La Laguna*

18:30-18:45 Sixto Giménez Benítez et al. *Churches orientations in the Jesuits Missions among Guarani People*

18:45-18:55 Panel Discussion

19:30 **Art attack:** *John David Mooney's Performance and Chamber Music Concert at the Faculty of Humanities*



## Wednesday 20: EDUCATION AND HERITAGE

09:00-13:15 **Fifth Session.** *Chairman Duane Hamacher*

09:00-09:15 Giulio Magli. *The POK-Coursera Archaeoastronomy MOOC after one year: a status report*

09:15-09:30 Javier Mejuto & Eduardo Rodas. *Cultural astronomy degree in Honduras: the next formative step for the discipline*

09:30-09:45 Andrew M. Munro & Steven R. Gullberg. *Skyscape Archaeology as a road to cultural insight. Research Epistemology and implications for Curriculum Design*

09:45-09:50 Panel Discussion

09:50-10:10 **Invited Talk:** Juan Antonio Belmonte et al. *The cultural landscape 'Risco Caído & the sacred mountains of Gran Canaria: a paradigmatic proposal within UNESCO 'Astronomy and World Heritage' Initiative.*

10:10-10:25 Robert A. Benfer and Larry Adkins. *Eclipses associated with abandonment of temples at the archaeological site of Buena Vista, Perú: 2200 BC—1780 BC*

10:25-10:40 Fernando Astete Victoria, Mariusz Ziolkowski & Jacek Kościuk. *Inca precise astronomical instruments: the observatory of Inkaraqay – El Mirador (NAP Machu Picchu, Perú)*

10:40-10:55 Gustavo Corrado et al. *The Inka ritual landscapes to the north and south of the Tropic of Capricorn from a comparative perspective*

10:55-11:10 J. McKim Malville and Johan Reinhard. *The Archaeoastronomy of High Altitude Inca Ceremonialism*

11:10-11:20 Panel Discussion

11:20-11:50 *Poster Visiting and Coffee break*

11:50-12:05 Arnold Lebeuf. *Mixtec genealogy, dynastic history? Mythology? or cosmology? The case of Lord 8-Mazatl*

12:05-12:20 Hans Martz de la Vega. *Case studies with archaeoastronomic approach in the State of Tabasco, Mexico (II)*

12:20-12:35 Stanislaw Iwaniszewski. *The observations of the Moon at Naranjo – new facts and interpretations*

12:35-12:50 Jesús Galindo Trejo. *Ichmac, a Maya Terminal Classic site, where the triumph of the Sun was commemorated with a calendric-astronomical architectural alignment*

12:50-13:05 Gerardo Aldana. *“Días de Muertos”, Astronomy and the Archaeological Record at Ancient Teotihuacan*

13:05-13:15 Panel Discussion

13:15-15:00 *Lunch time at Venue*

15:00-19:00 *Excursion to Dombate*

21:30 ‘Nerdnite’ at the Café Casino (four short popular talks in Spanish – talks TBC -- in a popular ambient; drinks and food not included)



## Thursday 21: INSPIRING SKIES

09:00-13:05 **Sixth Session.** *Chairman Gary Wells / Rolf Sinclair*

09:00-09:15 Gary Wells. *Black Sky: Aesthetics of the Extraterrestrial Landscape*

09:15-09:30 Valerie Shrimplin. *Astronomical Imagery in the Work of the PreRaphaelite Brother (and Sister) hood*

09:30-09:45 Perry Lange. *The Anantalingeśvara Mahādeva Temple in Dhadhikoṭa (Bhaktapur): 1500 years of astronomy and cosmology in Nepal*

09:45-10:00 A. Lochhead et al. *Creativity and Curiosity: exploring the space in-between astronomers and artists*

10:00-10:15 John G. Hatch. *With Bits of String and Sheets of Perspex: Naum Gabo's Modeling of Time and Space*

10:15-10:30 Angelo Adamo. *A Sky Family: different astronomical interpretations of Diego Velasquez' Las Meninas*

10:30-10:45 Roberto Trotta, Jozef Youssef & Stefano de Costanzo. *g-ASTRONOMY: The Universe with all your senses*

10:45-11:00 Giuseppe Severini & Andrea Orlando. *Santiago de Compostela Organistrum: an astronomical approach*

11:00-11:10 Panel Discussion

11:10-11:40 *Poster Visiting and Coffee break*

11:40-12:00 **Invited Talk:** Rolf Sinclair. *Astronomical Phenomena North of the Arctic Circle*

12:00-12:15 Stefano Giovanardi. *E LUCEVEN LE STELLE: engaging the public of Rome in a cultural repossession of the urban sky*

12:15-12:30 Richard L. Poss. *All in Doubt: Astronomical Imagery and Cosmological Uncertainty in Early Modern Writers*

12:30-12:45 Giangiacomo Gandolfi. *Stars and Theatre: from Renaissance Stage Astrologers to Astronomy-flavored Science Plays*

12:45-13:00 Nicholas Champion. *Astronomy and the Inspiration of Good and Evil: Morality, Ethics and the Planets.*

13:00-13:05 Panel Discussion

13:05-15:00 *Free Lunch-time*

15:00-17:30 **Seventh Session.** *Chairwoman Valerie Shrimplin*

15:00-15:15 Michael Rappenglueck. *The World as a Living Entity: Essentials of a Cosmic Metaphor*

15:15-15:30 Walmir Thomazi Cardoso and Roberto de Andrade Martins. *Sources of Iberian astronomy during the 16th century*

15:30-15:45 Chris Impey. *Our Future Off-Earth and the Road to the Stars*

15:45-16:00 Vicent J. Martínez and Albert Martínez-Artero. *The neverending story of the infinite cosmos*

16:00-16:15 Christiaan Sterken. *The Great Comet of 1858: a road sign to the stars.*

16:15-16:30 Bernd Klähn. *About starlight and the EPR-Paradox in Pynchon's novels and the films of Jim Jarmusch*



16:30-16:45 Ana Ulla-Miguel. *The Universe hidden inside Galician “cantigas”: moons, suns and stars popularly sung over generations*

16:45-17:00 Clive Davenhall. *Louis Pope Gratacap’s Mars: Martians, reincarnation and Radio Telegraphy*

17:00-17:10 Panel Discussion

17:10-17:35 **Ron Olowin**: *In Memoriam*

17:35-18:00 *Poster Visiting and Coffee break*

18:00-20:00 **Especial Session**: Relaxing visit to the art exhibition at Fonseca College and informal chat with the artists

20:30 Optional visit to the Ciudad de la Cultura complex and Astronomical Observation (weather permitting) by the Astronomical Observatory “Ramón María Aller”.



## Friday 22: METHODS

09:00-11:00 **Eighth Session.** *Chairman Frank Prendergast*

09:00-09:15 Georg Zotti, Florian Schaukowitsch, Michael Wimmer. *Beyond 3D Models: Simulation of Phased Models in Stellarium*

09:15-09:30 Gail Higginbottom and Roger Clay. *Testing, testing 1, 2, 3 .... Testing, testing what you see*

09:30-09:45 Kieran Simcox, Daniel Brown & Fabio Silva. *Revisiting Stellar Limiting Magnitudes: results from preliminary laboratory experiments*

09:45-10:00 Stephen McCluskey. *Archaeoastronomical Refraction Reconsidered*

10:00-10:15 Thomas T. Gough. *Archaeoastronomy and Refraction: a Discussion*

10:15-10:25 Panel Discussion

10:25-11:00 Clive Ruggles, César González, Juan Belmonte & Frank Prendergast  
*Conference Summary and Closing*

11:00-11:30 *Poster dismounting and Coffee break*

11:30-13:30 **SEAC AGM** \* and Elections

13:30-15:00 *Free lunch-time*

15:00-17:00 **ISAAC GA** \*

17:30-20:00 Cathedral Tour and Equinox

20:30 Conference dinner at San Martín Pinario Monastery

\* *Free time for non-members of the society*

## Saturday 23

Full day post conference excursion





## POSTERS

1. Angelo Adamo. *Framing astronomical explanations in emotional spaces – Popularizing astrophysical topics using comics*
2. Marea Atkinson. *Walking in fields of darkness and light*
3. Alan H. Batten. *History of the Argument from Design in Astronomy*
4. Themis G. Dallas. *Are the Moons of Ninnion a Representation of Earthshine?*
5. J. Anna Estaroth. *Clava cairns of Scotland, midsummer full moon and the major lunar limits*
6. Morag Feeney-Beaton. *Weaving the Skyline: a synthesis of two cultural manifestations of contemporary cosmology*
7. Alejandro Gangui, A. Guillén and M. Pereira. *Archaeoastronomy in northern Chile: Andean churches of the Arica and Parinacota region*
8. Marilyn Gottlieb-Roberts. *A Durable Tale: A 250-page artist's book*
9. Göran Henriksson. *The bright Supernova 1355 BC in Chinese texts and on Swedish rock-carvings*
10. Chris Impey and Dinah Jasensky. *Visualizing the Universe: The Intersection of Art and Astronomy*
11. George Latura. *Battle for the Milky Way: Plato vs Aristotle through the Ages*
12. Giulio Magli. *Astronomy and dynastic history in the funerary landscapes of the Chinese Emperors*
13. Penka Maglova, Alexey Stoev, Vassil Markov and Mina Spasova. *Functional elements connected with astronomical observations and practices on the territory of the Kovil rock-cut monument, Bulgaria*
14. Patricia Martín-Rodilla and César González García. *Extracting software representation and information visualization requirements for a diachronic study of astronomical alignments in archaeological sites*
15. Claude Maumené. *What can Archeoastronomy reveal about the function and meaning of the Bibracte basin and its builders?*
16. Ivy Merriot and Jack Robinson. *Medicine Wheel Astronomy*
17. Sinako Mgudlwa. *Analyzing South African and non-South African women preparedness for STEM career, using "the Sky in Our Lives Survey"*
18. Areg M. Mickaelian and S. Farmanyanyan. *Cosmic Tree in Armenian Culture*
19. Lynda Nutter and Jill Thompson-White. *Ancient Chinese Observatories in Australia and the Venus transit A.D. 1275 [as CT]*
20. Silvia Motta and Adriano Gaspani. *Qhapaq Ñan, "Road to the Stars" of the Inca Road system.*
21. Andrea Orlando, Carlo Veca & Davide Gori. *Archaeoastronomical study of the shaft tombs of the protohistoric necropolis of Thapsos (Sicily)*
22. Nikolaos Ragkos. *Land and skyscape during the 13th century in the Czech land*
23. Eduardo Rodas and Javier Mejuto. *First steps towards an archaeoastronomical software*
24. Vytautas Tumenas. *The signs of Morning star Aušra in Baltic tradition: regional and intercultural features*