

# Oral program

Monday July 3, 2017

8:30 - 9:30 Registration  
9:30 - 9:40 Opening and Welcome

## Session I. State-of-the-art of the astronomy education research

Chair: Christopher Impey

9:40 - 10:40 Anthony Lelliott **INVITED:** 40 years of astronomy education research: misconceptions, interventions and a future agenda  
10:40 - 11:10 *Coffee break*  
11:10 - 11:30 Daniel Barringer "How do we know planets are common?": a coherent content storyline for exoplanets  
11:30 - 11:50 Chris Impey Online Astronomy Courses for Formal and Informal Learners  
11:50 - 12:10 Javier Pérez Cáceres ScienceIES, a distinctive way to teach Astronomy  
12:10 - 14:00 *Lunch*

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## Session II. Research on leveraging new media and information systems for teaching and learning

Chair: Susana Deustua

14:00 - 15:00 Pamela Gay **INVITED:** Doing astronomy out loud: using new and social media to create an educated mob  
15:00 - 15:20 Chenzhou Cui Data driven astronomy education and public outreach  
15:20 - 15:50 *Tea break*  
15:50 - 16:10 Marieke Baan Thinking big in small country - astronomy outreach and education in Netherlands  
16:10 - 16:30 Annette Lee Celestial calendar-paintings and culture-based digital storytelling: cross-cultural, interdisciplinary, STEM/STEAM resources for authentic astronomy education engagement  
16:30 - 16:50 Margarita Metaxa Gaming to learn astronomy, an innovation approach, two study cases  
16:50 - 17:10 Maarten Roos-Serote Space videos on YouTube: what the audiences really likes  
17:10 - 18:30 **Poster session I**

**Tuesday July 4, 2017**

**Session III. Astronomy Education Research in Schools**

Chair: Beatriz Garcia

10:00 - 10:20	Cristina Leite	The sky observation in Brazilian textbooks
10:20 - 10:50		<i>Coffee break</i>
10:50 - 11:10	Antonio Eff-Darwich	Looking for stars, the sun and exoplanets in the educational core standards: the Spanish case
11:10 - 11:30	Shanshan Li	Data driven astronomy education in primary schools
11:30 - 11:50	Cristiano Mattos	Astronomical concepts in bilingual deaf education
11:50 - 12:10	Masamitsu Ohyama	The teaching materials for teachers about small astronomical telescopes
12:10 - 12:30	Rosa Maria Ros	Evaluating quality in education; the NASE ISO experience
12:30 - 14:00		<i>Lunch</i>
14:00 - 15:00	Constance Walker	<b>INVITED:</b> Outcomes from the IYL2015 Quality Lighting Teaching Kit Program: reaching for the stars
15:00 - 15:20	Jorge Rivero González	Astronomy pre-tertiary education in Leiden Observatory: beyond universe awareness
15:20 - 15:50		<i>Tea break</i>
15:50 - 16:10	Magda Stavinschi	Science and religion in undergraduate school education
16:10 - 16:30	Olga Suárez	EduCosmos, astronomical research in the classroom
16:30 - 16:50	Kentaro Yaji	Solar science education with use of the images and movies, its practice and evaluation
16:50 - 17:10	Héctor Bravo-Alfaro	Eight years after IYA2009: a project on astronomy education and its impact on selected countryside towns in Mexico
17:10 - 18:30		<b>Poster Session II</b>

Wednesday July 5, 2017

**Session IV. Research into the value and influence of astronomy education in other disciplines AND  
Interplay of students' worldviews with worldview of science in a globalizing world**

Chair: Magda Stavinschi

9:00 - 10:00	Nicoletta Lanciano	<b>INVITED:</b> Inter-, multi- and trans-disciplinary approaches in astronomy education research
10:00 - 10:20	Cristopher Corbally and Margaret Boone Rappaport	Choose science majors
10:20 - 10:50		<i>Coffee break</i>
10:50 - 11:10	Greg Stachowski	The Impact on education of Astronomical Olympiads and the International Olympiad on Astronomy and Astrophysics
11:10 - 11:30	Aniket Sule	Teacher's misconceptions in curricular astronomy

**Session V. Innovations in research methodologies and instrumentation**

Chair: Akihiko Tomita

11:30 - 11:50	Beatriz Garcia	Data exploration through the sonorization: an opportunity of multiple learning
11:50 - 12:10	Nataliya Kovalenko	Learning theories and Planetarium environment for astronomy education
12:10 - 12:30	Pablo Santamaria	Storytelling in a revolutionary way: fulldome production for planetariums
12:30 - 14:00		<i>Lunch</i>

Thursday July 6, 2017

**Session VI. Teaching astrobiology to a university multidisciplinary audience: opportunities and pitfalls**

Chair: Muriel Gargaud

9:00 - 10:00	Charles Cockell	<b>INVITED:</b> How to establish a complete introductory astrobiology course at your university
10:00 - 10:20	Molly Simon	An analysis of college students' understanding of planet formation before instruction
10:20 - 10:50		<i>Coffee break</i>
10:50 - 11:10	Jonas Souza	Astrobiology: obstacles and possibilities in the science teaching scenario
11:10 - 11:30	Rosemary Cane	The Astrobiology Academy: four years of resource development for primary and secondary schools
11:30 - 11:50	Roberto Vázquez	Learning Astrobiology 101 with experiments in Baja California, Mexico
11:50 - 12:10	Michael Waltemathe and Elke Hemminger	Teaching with Astrobiology - enhancing science and technology-awareness in non-science university students

**Session VII: Organization of astrobiology teaching and training in different institutions and countries / Future international cooperation in astrobiology teaching**

Chair: Wolf Geppert, Inge Loes ten Kate

12:10 - 12:30	Wolf Geppert	The European Astrobiology Campus - Towards a comprehensive training of astrobiology students in Europe
12:30 - 14:00		<i>Lunch</i>
14:00 - 15:00	Karen Meech	<b>INVITED:</b> International field-based courses in astrobiology: experiences and lessons learned

**Session V - continued: Innovations in research methodologies and instrumentation**

Chair: Akihiko Tomita

15:00 - 15:20	Emanuele Balboni	Other stars, Other planets
15:20 - 15:50		<i>Tea break</i>
15:50 - 16:10	Silvia Galano	A teaching-learning module on stellar structure and evolution
16:10 - 16:30	Simon Portegies Zwart	Education in computational astrophysics with the astronomical multipurpose software environment
16:30 - 16:50	Patricia Spinelli	What does the general public expect from a night-sky observation
16:50 - 17:10	In-Ok Song	Application of spectrometer in research-based astronomy education
19:00 - 23:00		<b>Conference dinner</b>

Friday July 7, 2017

**Session VIII: Innovative teaching and new assessment methods**

Chair: Kalle Kirsimäe

9:00 - 10:00	Charley Lineveawer	<b>INVITED:</b> Making an Astrobiological MOOC (Massive Open Online Course): Why? How? For Whom?
10:00 - 10:20	Kirsi Lehto	eTimeTrek: digital deep history of the universe
10:20 - 10:50		<i>Coffee break</i>
10:50 - 11:10	Jasmina Lazendic-Galloway	Assessment for learning in 1st year astronomy and astrobiology courses
11:10 - 11:30	Clementina Medina	The best skies on earth: How to link astronomy and cosmology to local development in the Argentinean Puna
11:30 - 11:50	Oleg Kotsyurbenko	Astrobiology education in Russia: problems and perspectives
11:50 - 12:10	Michael Reid	Non-science majors doing inquiry with robotic telescopes
12:10 - 12:30	Marcos Voelzke	Impact of a didactic sequence on basic astronomy concepts for graduates in physics of online and classroom modalities
12:30 - 14:00		<i>Lunch</i>

**Session VII: How to present astrobiology lectures to the general public and young pupils (10-16 years old)**

Chair: Inge Loes ten Kate

14:00 - 15:00	Daniella Scalice	<b>INVITED:</b> NASA and the Navajo Nation: bringing together astrobiology science and cultural knowledge for native youth
15:00 - 16:00	Paulo S. Bretones	<b>INVITED:</b> Astronomy education research: impact and the future directions
16:00 - 16:20		Wrap up and closing