Personalized Itinerary Planner and Abstract Book

AAS 231

January 06 - 12, 2018

To make changes to your itinerary or view the full meeting schedule, visit
https://aas231.abstractcentral.com/planner.jsp

Saturday, January 06, 2018

You have nothing scheduled for this day

Sunday, January 07, 2018

You have nothing scheduled for this day

Monday, January 08, 2018

You have nothing scheduled for this day

Tuesday, January 09, 2018

You have nothing scheduled for this day

Wednesday, January 10, 2018

You have nothing scheduled for this day

Thursday, January 11, 2018

Time	Session or Event Info
2:00 PM-3:30 PM, National Harbor 3 (Gaylord at National Harbor), **324. Astronomy Visualization in Research, Outreach, and Entertainment**, Special Session, Organizer: Frank Summers, summers@stsci.edu, Space Telescope Science Institute	
2:00 PM-3:30 PM	**Frank Summers, Space Telescope Science Institute − Cinematic Scientific Visualizations**
2:00 PM-3:30 PM	**Ryan Wyatt, California Academy of Sciences − Authentic Science in the Planetarium Dome**
2:00 PM-3:30 PM	**Kimberly Kowal Arcand, Smithsonian Astrophysical Observatory − Aesthetics and Astronomy: How Visualizations Shape Public Perception**
2:00 PM-3:30 PM	**Robert Hurt, Infrared Processing and Analysis Center − Rendering Science as Art for Communication and Engagement**
2:00 PM-3:30 PM	**Lars Lindberg Christensen, European Southern Observatory − Connecting to Planetariums: The Data2Dome Initiative**
2:00 PM-3:30 PM	**Mubdi Rahman, Johns Hopkins University − Leveraging Visualizations for Astronomical Discovery**
5:30 PM-6:30 PM, Prince Georges Exhibit Hall (Gaylord at National Harbor), **360. Outreach Across the Human Continuum Poster Session**, Poster Session	
5:30-5:30 PM	**360.12. Authentic Astronomical Discovery in Planetariums: Data-Driven Immersive Lectures** R.J. Wyatt

5:30-5:30 PM	**360.13. Authentic Astronomical Discovery in Planetariums: Bringing Data to Domes** R.J. Wyatt; M. Subbarao; L. Christensen; B. Emmons; R. Hurt

Friday, January 12, 2018

You have nothing scheduled for this day

Final ID: 360.12

Authentic Astronomical Discovery in Planetariums: Data-Driven Immersive Lectures

R. J. Wyatt; [1];
1. Morrison Planetarium, California Academy of Sciences, San Franisco, CA, United States.

Abstract Body: Planetariums are akin to “branch offices” for astronomy in major cities and other locations around the globe. With immersive, fulldome video technology, modern digital planetariums offer the opportunity to integrate authentic astronomical data into both pre-recorded shows and live lectures. At the California Academy of Sciences Morrison Planetarium, we host the monthly Benjamin Dean Astronomy Lecture Series, which features researchers describing their cutting-edge work to well-informed lay audiences. The Academy’s visualization studio and engineering teams work with researchers to visualize their data in both pre-rendered and real-time formats, and these visualizations are integrated into a variety of programs—including lectures! The assets are then made available to any other planetariums with similar software to support their programming. A lecturer can thus give the same immersive presentation to audiences in a variety of planetariums. The Academy has also collaborated with Chicago’s Adler Planetarium to bring Kavli Fulldome Lecture Series to San Francisco, and the two theaters have also linked together in live “domecasts” to share real-time content with audiences in both cities. These lecture series and other, similar projects suggest a bright future for astronomers to bring their research to the public in an immersive and visually compelling format.

Final ID: 360.13

Authentic Astronomical Discovery in Planetariums: Bringing Data to Domes

R. J. Wyatt; [1]; *M. Subbarao;* [2]; *L. Christensen;* [5]; *B. Emmons;* [4]; *R. Hurt;* [3];

1. Morrison Planetarium, California Academy of Sciences, San Franisco, CA, United States.
2. Adler Planetarium, Chicago, IL, United States.
3. IPAC, Pasadena, CA, United States.
4. LSST, Tucson, AZ, United States.
5. European Southern Observatory, Garching bei München, Germany.

Abstract Body: Planetariums offer a unique opportunity to disseminate astronomical discoveries using data visualization at all levels of complexity: the technical infrastructure to display data and a sizeable cohort of enthusiastic educators to interpret results. “Data to Dome” is an initiative the International Planetarium Society to develop our community’s capacity to integrate data in fulldome planetarium systems—including via open source software platforms such as WorldWide Telescope and OpenSpace. We are cultivating a network of planetarium professionals who integrate data into their presentations and share their content with others. Furthermore, we propose to shorten the delay between discovery and dissemination in planetariums. Currently, the “latest science” is often presented days or weeks after discoveries are announced, and we can shorten this to hours or even minutes. The Data2Dome (D2D) initiative, led by the European Southern Observatory, proposes technical infrastructure and data standards that will streamline content flow from research institutions to planetariums, offering audiences a unique opportunity to access to the latest astronomical data in near real time.