



## Special DUG Edition

Thank you to all of the wonderful presenters who shared their content at the 2019 conference and to the Boonshoft Museum of Discovery for hosting. From the conference, we have over 3.5 hours of new content uploaded to Digistar Cloud, ready to be enjoyed with your audiences.



**First Place 2019 DUG Awards  
Best Use of Dome**

## Apollo 11 Collection

Features a collection of scripts, showing important scenes of Apollo 11 on the way to the Moon and back.

Uses the high resolution models of the command module, service module and the LM recently uploaded by E&S. The S-IVB is from Celestia Motherload/Diane Neisius.

Thanks to Marc Horat /Verkehrshaus der Schweiz for his contributions to the landing scenes. Thanks to Brian Moore (E&S) for providing the trajectories of Apollo 11.

**Created by Rainer Christiansen  
Planetarium Flensburg**

  
**MENKE  
PLANETARIUM**  
HOCHSCHULE FLENSBURG

**E&S**

**EVANS & SUTHERLAND**

**DIGISTAR**   
Do More



**Second Place 2019 DUG Awards  
Most Original or Innovative Idea**

## The Planets of Star Wars

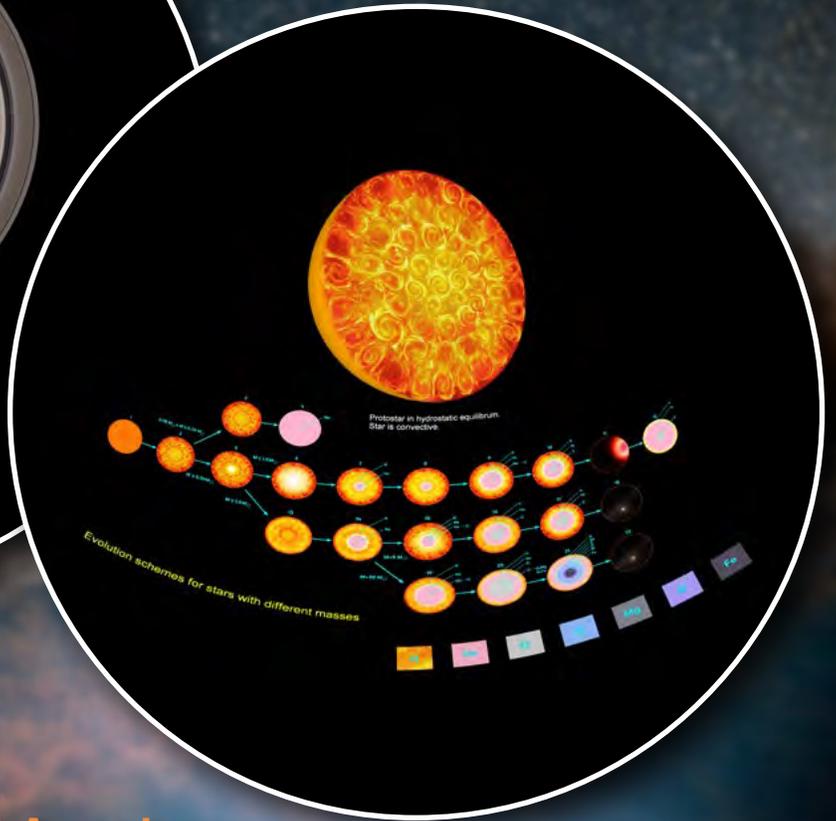
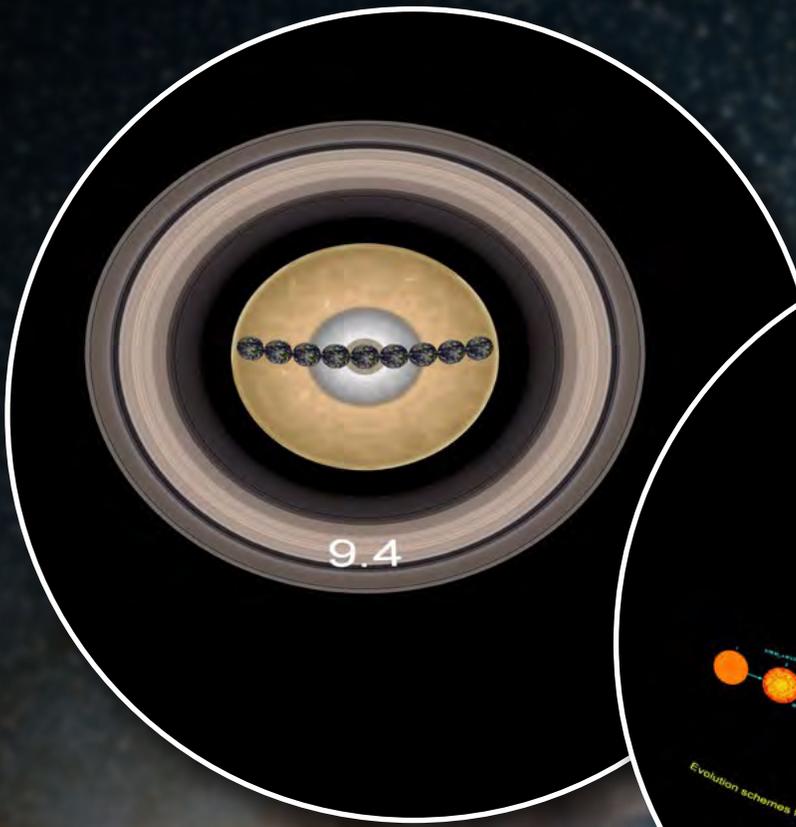
The unofficial Star Wars expansion for Digistar! Including over 30 planets, custom music, landscapes, starships, and everything else you could imagine.

The Planets of Star Wars was created on Digistar 5, and certain features may not work as expected on Digistar 6.

The Planets of Star Wars is an ongoing development and, as such, will be continuously updated to add new features and remove bugs.

**Created by Kevin Scheiman  
Boonshoft Museum of Discovery**





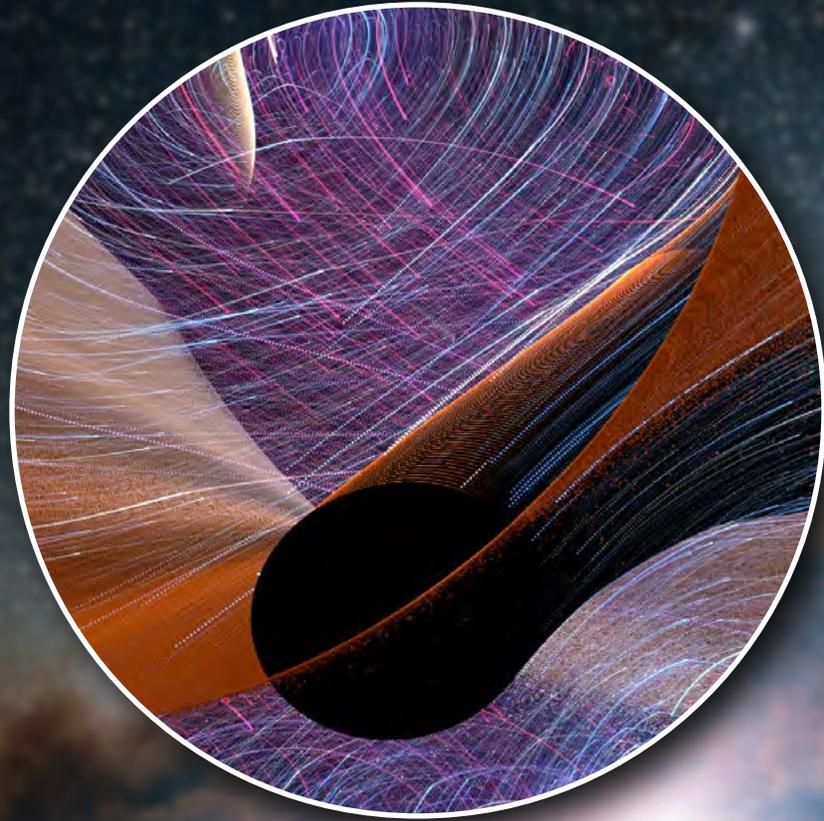
**Third Place 2019 DUG Awards  
Most Useful Demo**

## **Evolution Schemes for Stars and Scale Comparisons of the Planets and Moons**

This control panel page allows us to show an evolution scheme for stars with different masses based on "Fundamental Astronomy" (Fifth Edition), Hannu Karttunen - 11.5 The Final Stages of Evolution - pages 252-253.

**Video: Natalia Oliwiak  
Script & Control Panel: Michal Kata  
EC1 Planetarium**





**2019 DUG Awards  
Special Mention**

## **Hurts Like Heaven**

Mylo Xyloto & Hurts Like Heaven

The first song off the album Mylo Xyloto by Coldplay. The very first song I worked independently on.

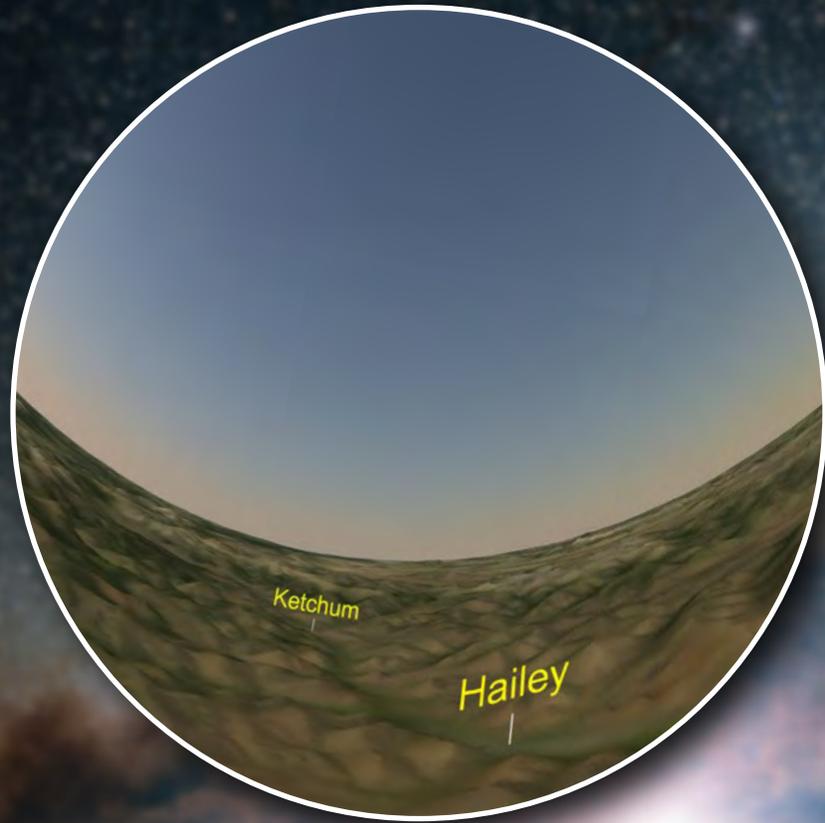
**Created by Ashley Mann  
SUNY Onenta Planetarium**

**SUNY  
ONEONTA**



**EVANS & SUTHERLAND**

**DIGISTAR**   
Do More



## Idaho Custom Terrain Flights

This script demonstrates custom terrain tiles being used for flying audiences, school groups in particular, from Twin Falls to their hometown in Idaho or Nevada from where we conduct a tour of the current night sky.

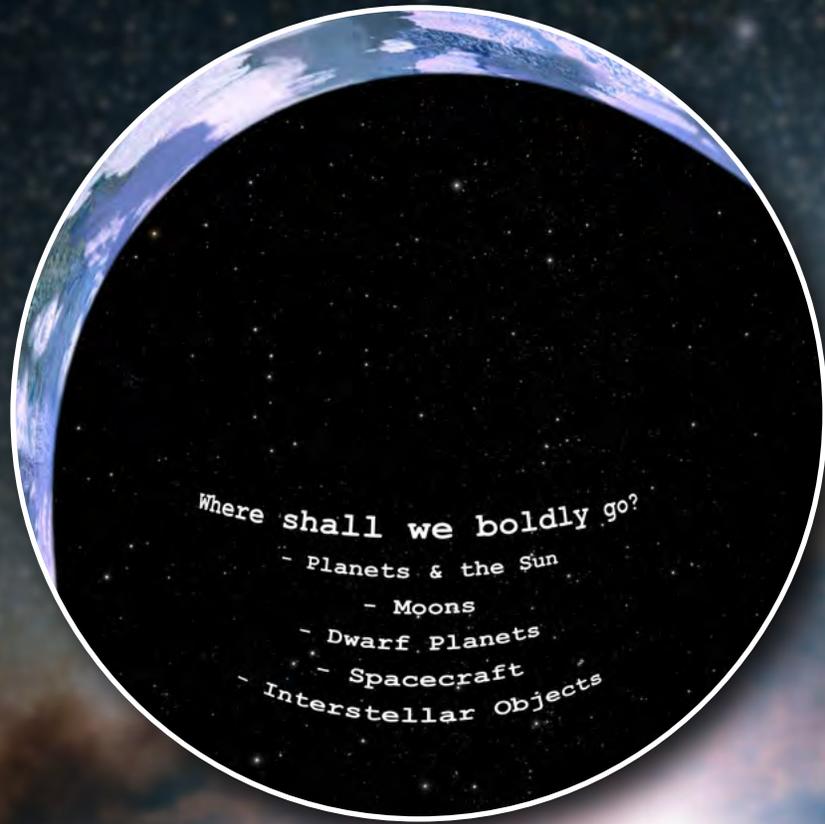
Given the mountainous terrain of the region, the horizon that the kids observe in their hometown may be very different from that in Twin Falls, where the Faulkner Planetarium is located. Along the way town names and geographic feature names are displayed as the observer flies past and sign posts extend down to the terrain to denote their exact locations.

**Created by Rick Greenawald**  
**Faulkner Planetarium**

---

**FAULKNER**  
**PLANETARIUM**

---

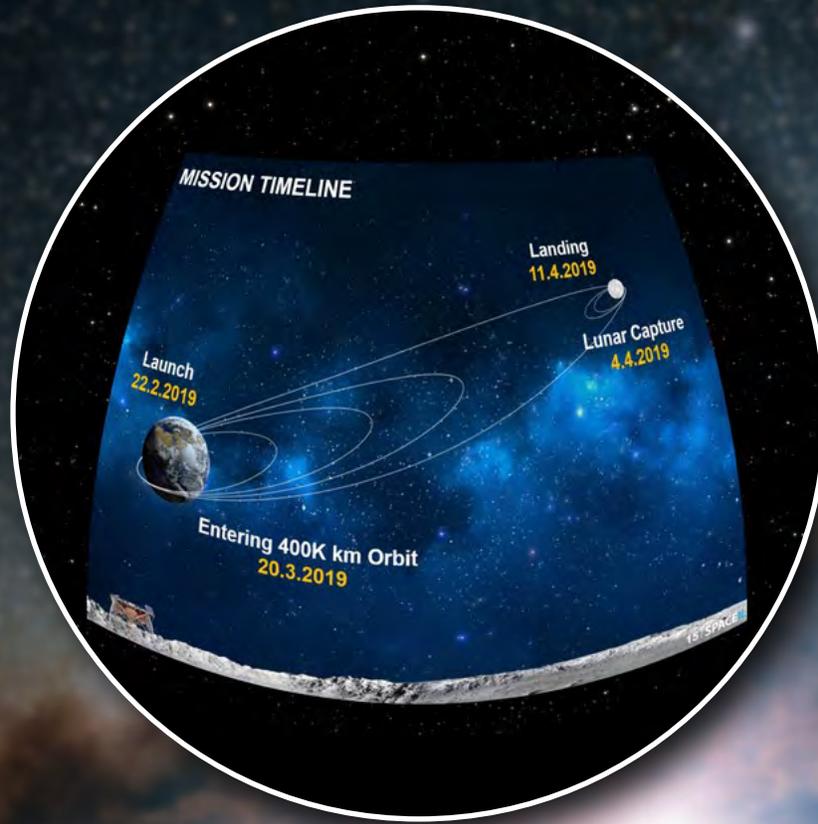


## Choose your Flight – Main Menu

A series of scripts for planetarium guests to fly around different objects with an Xbox controller. Using D4, we made a series of menu options so that each guest can personally choose the object they want to visit.

**Created by Christa Speights**  
**Haile Planetarium**  
**Northern Kentucky University**



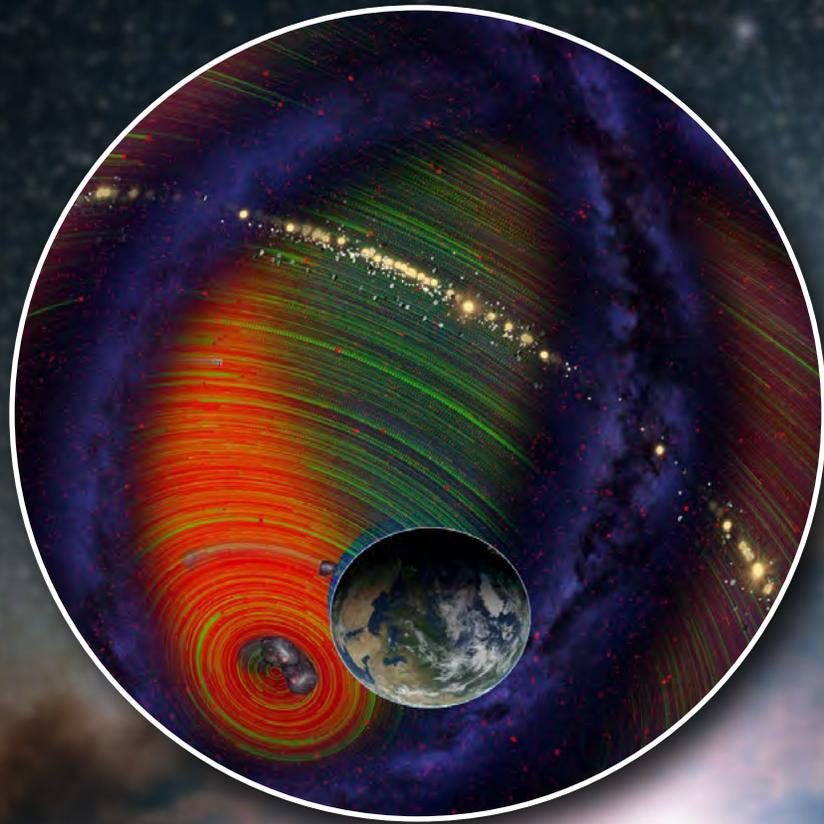


## Back to the Moon Update

A sideshow update of information that has come out since the Google Lunar XPRIZE project ended. We play this script after showing "Back to the Moon" to audiences. The script shows both text and images set to music.

**Created by Adrien Jones**  
**Haile Planetarium**  
**Northern Kentucky University**





## To the Edge and Back & Ever Fallen in Love

“To the Edge and Back” is an experience in perspective. It’s the product from the thought of who we truly are when placed in comparison to that which surrounds us. As we travel to the outer borders of our universe, we journey through time, going through the ever growing versions of our knowledge of the cosmos. We see how far we have come, and how far we have yet to go.

“Ever Fallen in Love” is a music video featuring Pete Yorn’s 2004 cover, which was featured on the Shrek 2 soundtrack.

Created by Steven Bradley  
SUNY Onenta Planetarium

SUNY  
ONEONTA

E&S

EVANS & SUTHERLAND

DIGISTAR   
Do More

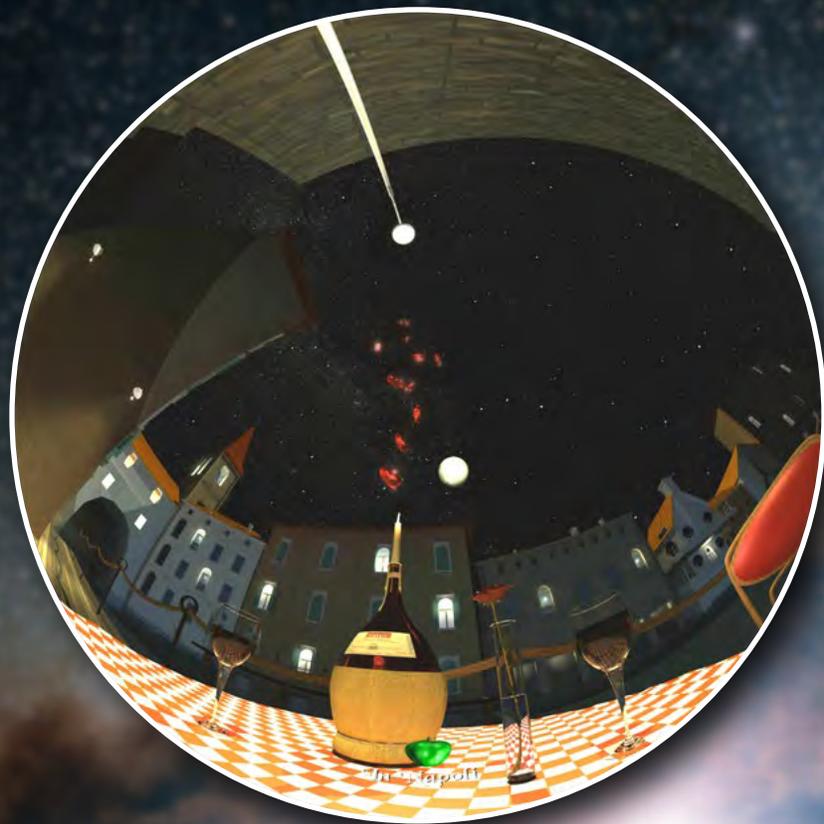


## Apollo Anniversary and More

A collection of scripts highlighting the Apollo anniversary including two slide shows with images about the early development of the Apollo program and the “imagination capital” generated in the 1950’s and early space race. The other scripts tour the interior of the Columbia spacecraft and the Sea of Tranquility landing site.

**Created by Mike Murray**  
**Delta College Planetarium**





## Valentine Demos

This script is part of the Romancing the Stars show, there are four short sequences:

Mark Lee & Jan Davis were husband and wife astronauts aboard the same shuttle mission in 1992. A heart collage forms from various pictures. A segment to the tune Fly Me to the Moon and a segment of a UFO bouncing around various planets and moons.

**Created by Bob Bonadurer**  
**Milwaukee Public Museum, Soref Planetarium**





## Yoga Visualizations

These are some scripts that were created to play during special yoga exercise events in the dome. A special note is to take care with movement on the dome, especially during certain poses. More movement on the dome is acceptable during rest poses.

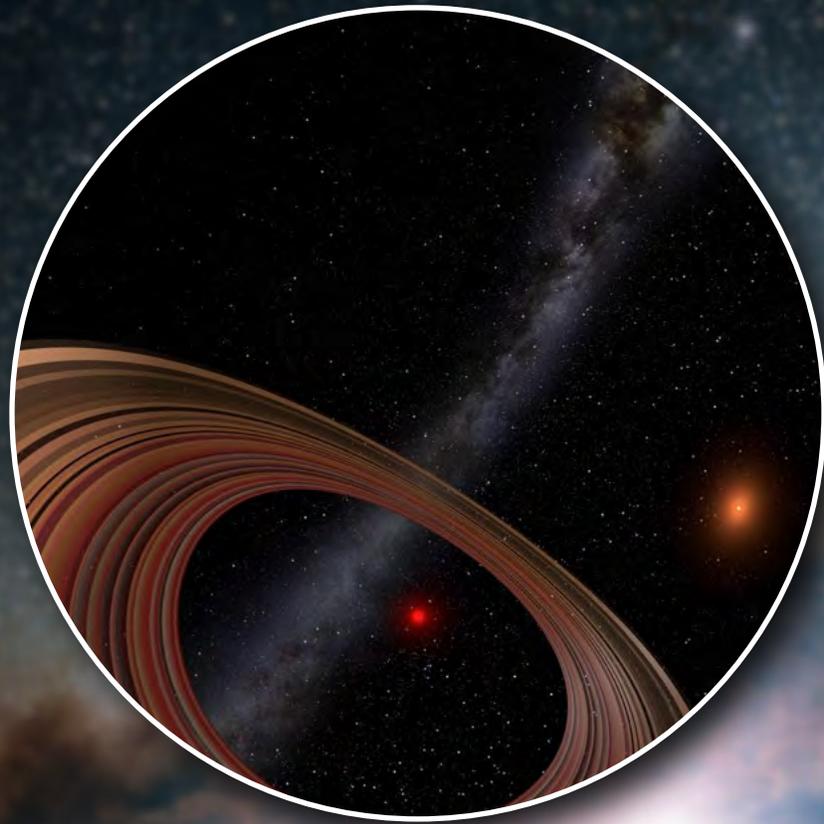
Created by Nick Lake  
Adler Planetarium

**ADLER**  
PLANETARIUM

**E&S**

**EVANS & SUTHERLAND**

**DIGISTAR**   
Do More

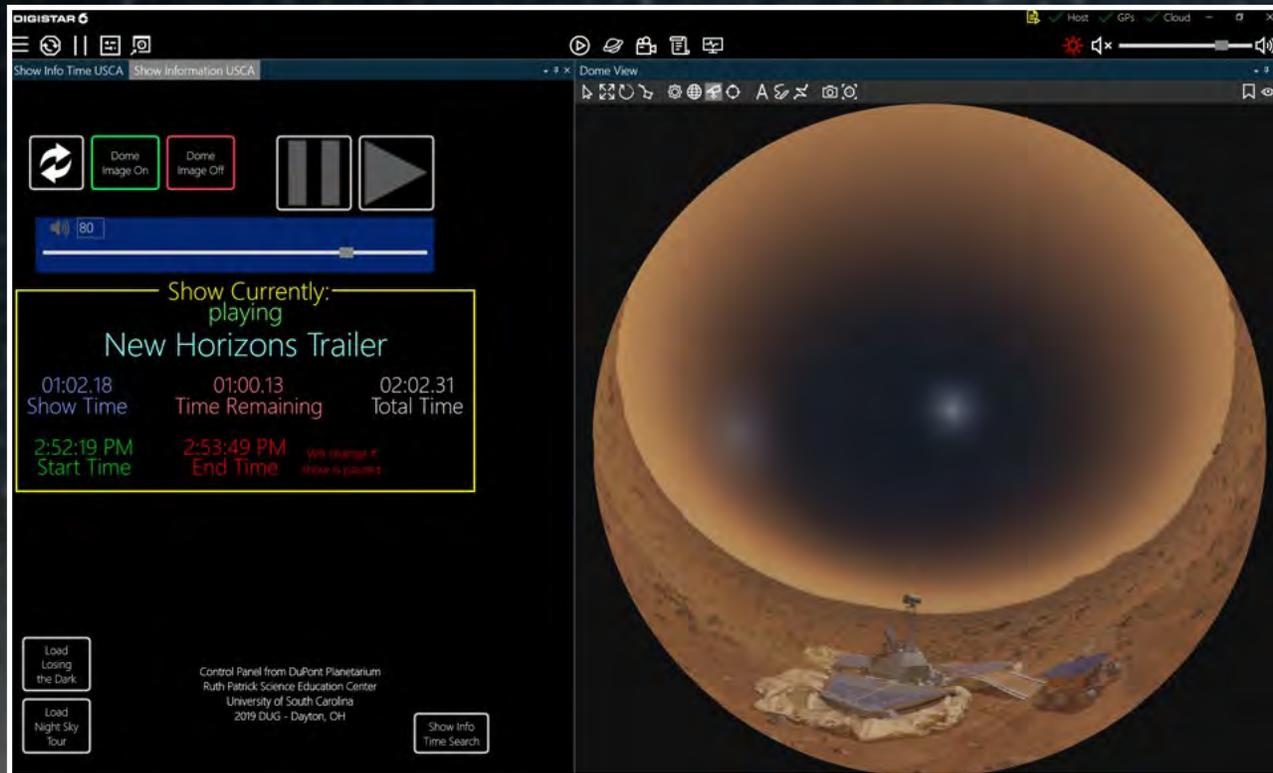


## J1407 System

A fly-through of the J1407 system, which contains a brown dwarf that is surrounded by a massive ring system that is the size of the orbit of Venus. The brown dwarf is quite young, so it appears similar to a red dwarf star. The accompanying music was written by SUNY Oneonta Music Industry Students who were working with SUNY Oneonta Astronomy students to produce sounds and visualizations for the planetarium.

Created by Josh Nollenberg  
SUNY Oneonta

SUNY  
ONEONTA



## Show Information & Development Control Panels

Control panel pages that display information about a show that is currently loaded and playing.

Page 1- Show Info: Information includes Show name, show time, time remaining, total time, time of day show started, time of day show will end. Show volume can be adjusted from the page. System messages display on the page. Show pause and show play buttons are on the page.

Page 2- Show Info Time: A page of buttons with show times every 30 seconds. Allows a user to skip to a show time of a running show. Volume, pause and play buttons are also on the page.

**Created by Gary J. Senn**  
**USC Aiken - DuPont Planetarium**





## Sea Ice Today and Latest GOES-16 Image

### Sea Ice Today:

This script downloads the latest data regarding the extent of sea ice in the northern hemisphere. It then displays it on the globe and loops a comparison with the four previous years and also displays a plot for comparison.

### Latest GOES-17 Earth Full Disk:

This script fetches the latest available fully illuminated Earth picture from the GOES-17 satellite from NOAAs database and displays it as Allsky image on the dome.

**Created by Marc Horat**  
**Planetarium Verkehrshaus**





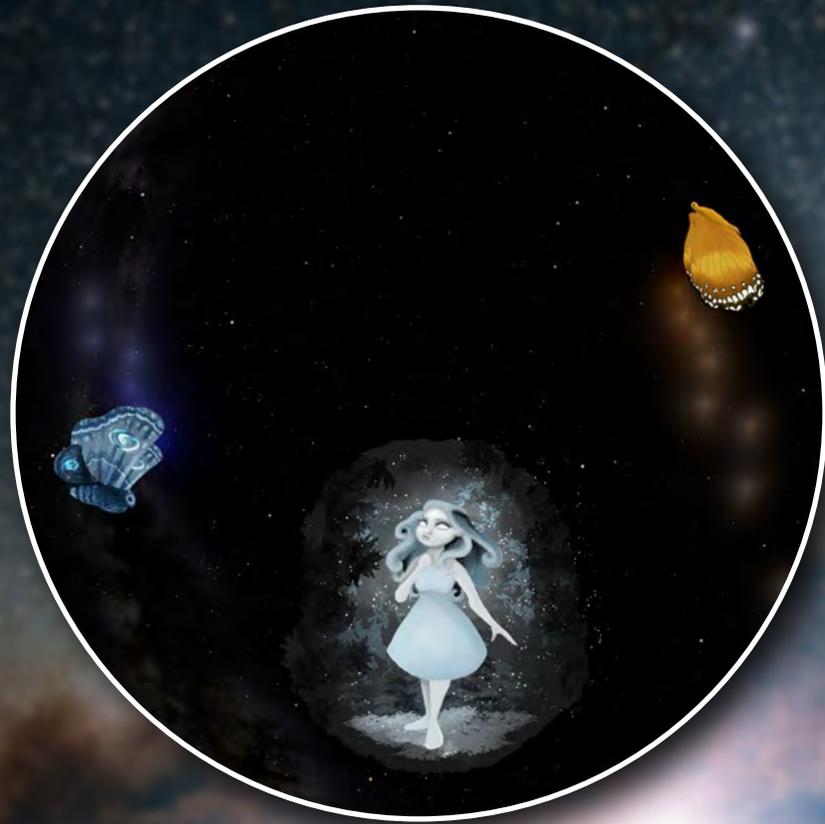
## Mysteries of Galapagos

Welcome to Colgate Virtual Galapagos, a digital learning module currently in development by students, staff, and faculty at Colgate University.

The primary objective of the virtual Galapagos Project is to construct a digital educational experience for children around the globe to learn about science through the lens of the Galapagos Islands. Our project differs from many existing informal science efforts, in that students encounter concepts from multiple disciplines, with an emphasis on geology and evolutionary biology.

**Created by Joe Eakin**  
**Colgate University -**  
**Ho Tung Visualization Lab**

**HO TUNG**  
VISUALIZATION  
LABORATORY



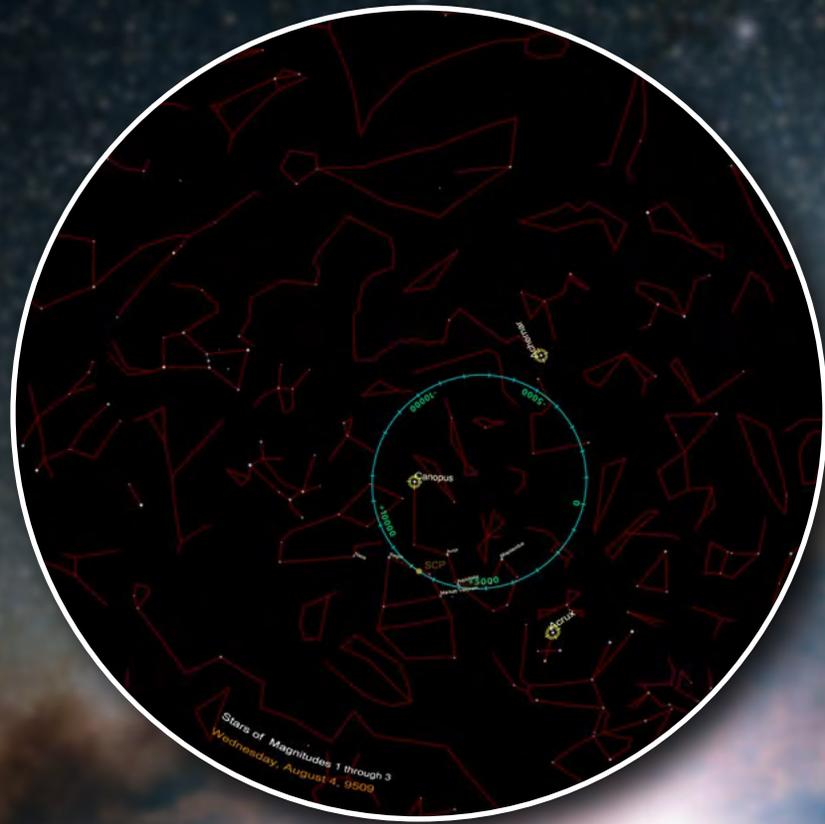
## Total Eclipse of the Heart music video

Originally from a live concert in our dome with various visuals this special demo was assembled for DUG 2019. It features a special performance of "Total Eclipse of the Heart"

Script & Digistar: Nico Kuhn  
Drawing: Neele Siemann  
Singing: Viola Schnittger  
Piano: Sergey Rotach

Created by Nico Kuhn  
Mediendom

**MEDIENDOM**  
DER FACHHOCHSCHULE KIEL



# Real-time Scripts from Astronomy Classes

A collection of scripts from college-level astronomy classes taught inside the planetarium.

**Created by David Wright**  
**Tidewater Community College**

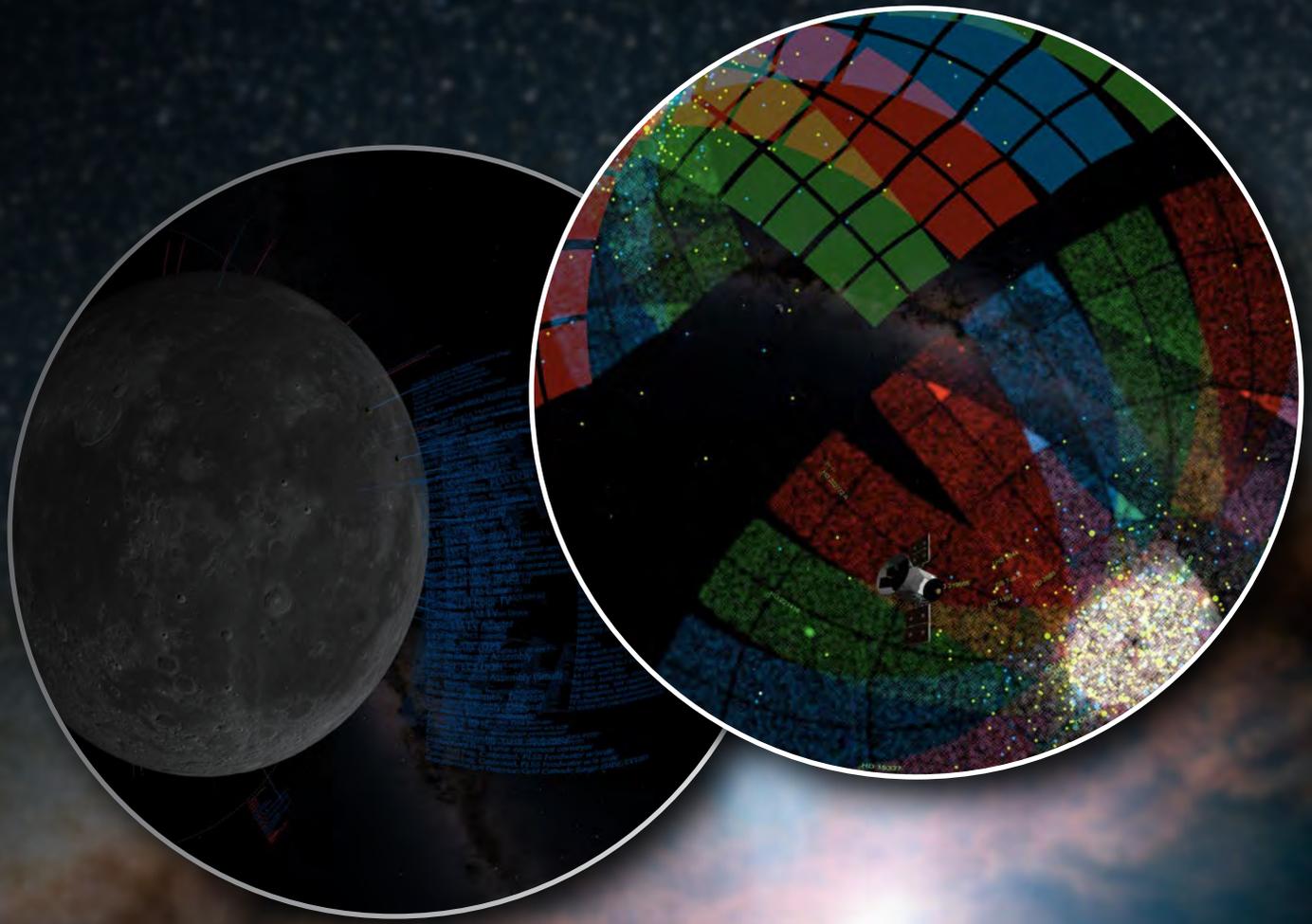




## Warp Drive Take Off and Side View

Simulation of an Alcubierre Warp Drive effect using only Digistar classes and models. A `blackHoleClass` object simulates the front of the warp bubble, appearing to stretch out the stars behind it due to the high gravitational potential. The reverse effect in the back of the warp bubble, which makes the stars appear to be sucked inward due to negative gravitational potential, is created with the scene zoom attribute, which draws space inward at the point on the dome opposite to the scene zoomAttitude point.

**Created by Adam Barnes**  
**Houston Museum of Natural Science**  
**Burke Baker Planetarium**



# Fan-TESS-tic Exoplanets and Lunar Litter

## Fan-TESS-Tic ExoPlanets:

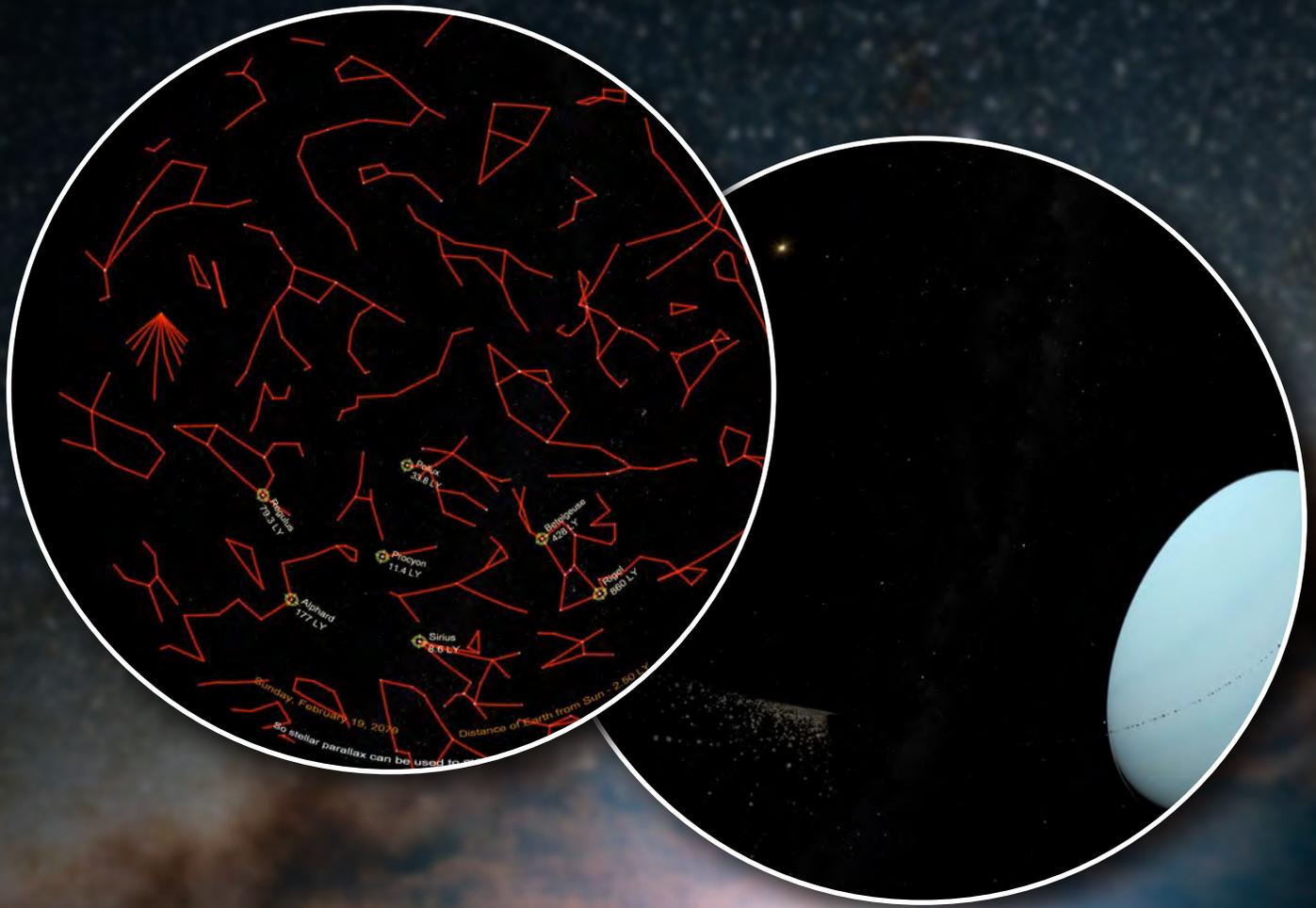
The Transiting Exoplanet Survey Satellite is a little more than halfway through its prime mission searching for planets around relatively bright nearby stars.

## Lunar Litter:

This script transports viewers to the Moon and adds markers for nearly every artificial object known to exist on the Moon. It relies primarily on NASA's Catalogue of Manmade Objects on the Moon, compiled in 2012. I've searched out more recent landings and impacts from various other sources.

**Created by Justin Bartel**  
**Science Museum of Virginia**





## Solar System Flight and Parallax

### Solar System Flight

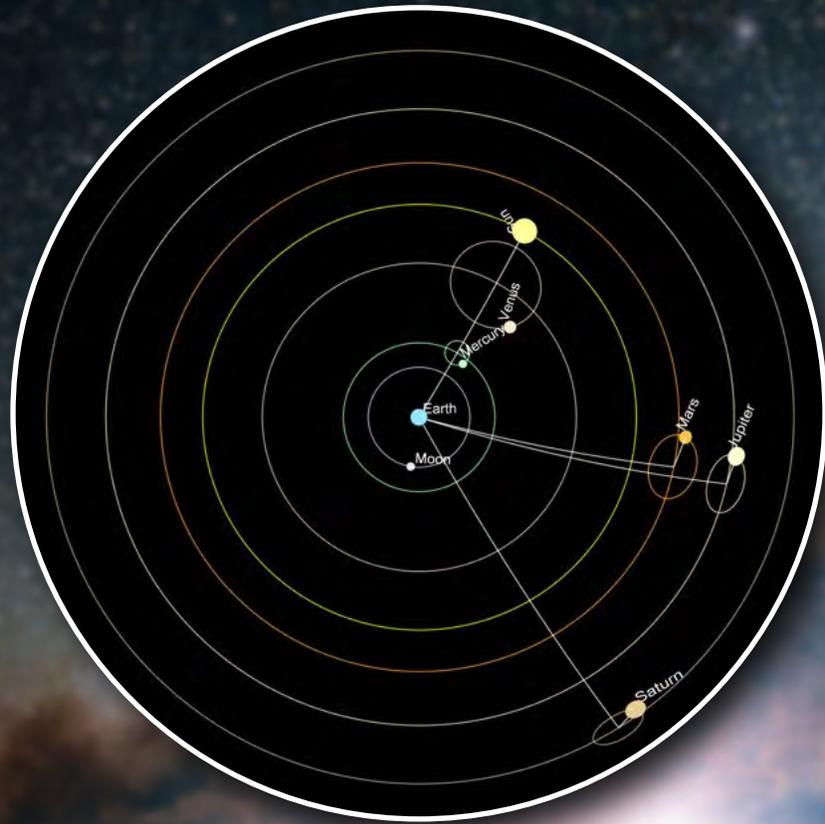
A fun and fast-paced flight around the planets and some of their moons set to music.

### Parallax

A demonstration of stellar parallax from our Exploring the Galaxy show. The script begins with a view from space of Earth's orbit, we see how the line of sight through a foreground star changes over 6 months, with an inset window showing the view from Earth. We then move to a sky view, and Earth's orbital distance is increased to 2.5 ly so that stellar parallax becomes more exaggerated. A few stars of varying distances from Earth are highlighted.

**Created by Anna Henley**  
**We The Curious**





## Epicycles

This script (and the Control Panel page) are to illustrate the main characteristics of epicycles and Ptolemy's geocentric model of the universe.

**Created by Amy Barraclough**  
**Edelman Planetarium**

