

Indiana University of Pennsylvania

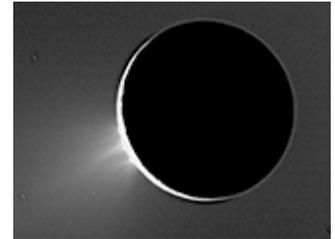
## 2019-2020 Planetarium Shows

**FREE AND OPEN TO PUBLIC**  
Weyandt Hall Planetarium, IUP campus

### **Water, Water (Ice) Everywhere**

**Thurs. Oct. 3, 2019, 7:00 P.M.**

The outer solar system was thought to be too cold for liquid water, but the many of the moons have ice and even internal oceans. (Cassini image of Enceladus; NASA/JPL-Caltech)



### **Astronomy Short Stories (Student Showcase)**

**Weds. Dec. 4, 2019, 7:00 P.M.**

The astronomers and science teachers of tomorrow (IUP undergraduates) are preparing an evening in the planetarium just for you! Come by and see the talent of tomorrow in action – previous showcases have been fun and memorable.



### **Astronomy and Calendars**

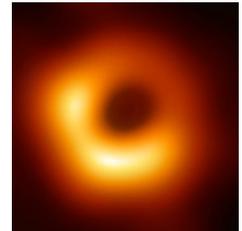
**Fri. Feb. 28, 2020, 7:00 P.M.**

Leap day is a good time to reflect on the complexity of the calendar. What does astronomy have to do with calendars? Come find out. (Analemma over Scotland; Giuseppe Petricca)

### **How to Photograph a Black Hole**

**Weds. Apr. 1, 2020, 7:00 P.M.**

We've all heard that you can't see a black hole because light can't escape. How can we tell they are there, and what they are like? We'll explore the latest ideas. (Black hole in M87; NASA/JPL-Caltech)



**Sponsored by the  
IUP Geoscience Department and the  
IUP Kopchick College of Natural Science and Mathematics**

Shows are at the Indiana University of Pennsylvania planetarium, located on the first floor of Weyandt Hall. Weyandt Hall is on the east side of the Oak Grove next to Oakland Avenue. Weather permitting, after the show telescope observing of the night sky will be available. Seating is limited; doors will open 15 minutes before each show. Groups that wish to attend are asked to call in advance. For more information call 724-357-5626 or 724-357-2379.