

# Meeting Notice February 2018

## Of the **Rittenhouse Astronomical Society**

The Society invites members, guests and the interested public to our upcoming meeting (students encouraged to attend.) FREE / Open to the general public, no admit fee. Membership not required.

### WHO:

GUEST PRESENTER

**Professor Eric L. N. Jensen**

**Astronomy Department, Swathmore College**

Topic:

**Extrasolar Planets: What do we Know?**

### WHERE:

THE FRANKLIN INSTITUTE  
222 20<sup>TH</sup> STREET & THE PARKWAY  
PHILADELPHIA PA

**WHAT:** Since the discovery of the first extrasolar planet a little more than 20 years ago, the list of known planets orbiting other stars has grown to more than 3,000—but we are still in the early stages of understanding the diversity of other planetary systems. A key part of this understanding has come from studies of planets that eclipse (or “transit”) their host stars as seen from Earth. I will explain how studies of these planets allow us to determine a planet’s radius, mass, and mean density, and in some cases also atmospheric composition and the angles at which it orbits relative to the parent star’s equator, all without being able to image the planets directly. Small telescopes (with primary mirror diameters of 0.3–1 meter) play an important role in the larger “ecosystem” of telescopes that discover and characterize these planets, and such telescopes have been instrumental in the recent discoveries of planets around very bright stars that are much hotter than the Sun, and the seven Earth-radius planets around the ultra-cool dwarf star Trappist-1.

### WHEN:

**February 20, 2018; 7:00 PM ~Tuesday (Third Tue. of Month)~ AGENDA**

7:00 - Doors Open

7:15 - Call to Order

7:20 - Planet Report ~ D. Vacca

7:30 - This is Rocket Science~ D. Walker

7:40 - Look'in UP! ~ T. Williams

7:50 - Presidents Address

8:00 - Guest Presenter: Louis Berman

8:50 - Mystery Minute: Renee Stein

Web: [www.RASPhilly.org](http://www.RASPhilly.org) , <http://www.RittenhouseAstronomicalSociety.org>

FaceBook:RittenhouseAstronomy

### Mailing Address:

RITTENHOUSE ASTRONOMICAL SOCIETY  
P.O. BOX 283  
FEASTERVILLE, PA 19053-0283

Professor Jensen's area of specialization is planet formation and, more broadly, astrobiology or the study of the origin and distribution of life in the cosmos. His current research focuses the observations of young stars whose ages (1-100 million years) suggest that they may be in the process of forming planets. He also studies protoplanetary disks around young single and binary stars and is interested in planet formation and whether such planets would be habitable.

Professor Jensen has published numerous articles in scholarly journals including the

“Astronomical Journal” and the “Astrophysical Journal.”

In 2016, Jensen was part of a worldwide network of astronomers who confirmed the existence of Kepler-1647b, the largest circumbinary planet ever found.

He received his B.A. from Carleton College and his M.S. and Ph.D. from the University of Wisconsin.



### DATES TO REMEMBER:

**March 10, 2018**

Muddy Run Observatories  
Public Star Watch

**March 17, 2018**

Messier Marathon  
Muddy Run Park

**March 20, 2018**

City Wide Telescope Participants  
Orientation Dinner  
Precedes Rittenhouse Meeting

**April 27, 2018**

City Wide Telescope Night  
Locations across Philadelphia Area