KNAC 10/17/15

# **Program Schedule**

# <u>SESSION I:</u> 8:40 – 10:30

### Historic Optical Light Curve of the Blazar 3C 454.3

Leah Jenks '17, Brian D'Auteuil '16, Colgate University & Caitlin Rose '17, Vassar College Advisor: Thomas Balonek, Colgate University

# The 2014–2015 Optical Outburst of the Blazar 3C 454.3

Zachary Weaver '17, Nicholas Didio '16 & Carolyn Morris '17, Colgate University Advisor: Thomas Balonek, Colgate University

#### X-ray Analysis of Four Low-Redshift QSOs

Carol Hundal, Wellesley College & Larson Lovdal, Middlebury College Advisor: Eilat Glikman, Middlebury College

# A New Selection Criteria for Red and Obscured Quasars in Stripe 82

Milena Crnogorčević, Middlebury College & Henry Daniels-Koch, Bowdoin College Advisor: Eilat Glikman, Middlebury College

# Assessing the Utility of Quantitative Morphology Measures in Galaxy Formation Simulations

Matthew W. Abruzzo, Haverford College *Advisor: Desika Narayanan, Haverford College* 

### <u>SESSION II:</u> 11:00 – 12:30

**Tracking Spectral Noise Lines in Advanced LIGO Data** Gillian Dora Beltz-Mohrmann, Wellesley College Advisors: Alan Weinstein & Jonah Kanner, California Institute of Technology

Short Term Variability in the Open Cluster NGC 1960 Hallee Wong '18, Williams College & Aylin Garcia Soto '18, Wesleyan University Advisor: Steven Souza, Williams College

# CO and DCO+ to Constrain Turbulence and Snow Line in HD 163296

Sanaea Cooper Rose, Wellesley College Advisor: Meredith Hughes, Wesleyan University

# Searching for Non-Axisymmetry in 49 Ceti's Unusual Gas-Rich Debris Disk

Cail Daley, Wesleyan University Advisor: Meredith Hughes, Wesleyan University

# Photoionization Models of Planetary Nebulae in the Outer Regions of M31

Tim Nagle-McNaughton '18 & MeiLu McDermott '16, Williams College Advisor: Karen Kwitter, Williams College

#### Spectral Analysis of Magnesium and Iron in the Interstellar Medium Julian Dann, Wesleyan University

Advisor: Seth Redfield, Wesleyan University

# <u>SESSION III</u>: 2:15 – 3:30

# **Detecting K2 Campaign 3 Planet Candidates**

Katie Karnes '17, Colgate University Advisor: Jeffrey Smith, SETI Institute/NASA Ames Research Center

# **Open Source Planet Hunting with Cloud-Kepler**

Girish Duvvuri, Wesleyan University Advisors: Peter McCullough & Scott Fleming, STScI

# **Recovery of Long Period Transiting Exoplanets**

Arjun Khandelwal, Haverford College Advisors: Rebekah I. Dawson, University of California, Berkeley & Desika Narayanan, Haverford College

### Searching for Circumbinary Planets in K2 Data

Emma Lewis & Nicole Bañales, Swarthmore College; Marcus Hughes, Williams College Advisor: Eric Jensen, Swarthmore College

#### **Kepler Observations of ASAS Variables**

Jacklyn M. Pezzato, Swarthmore College Advisor: Kenneth J. Mighell, National Optical Astronomy Observatory

# <u>SESSION IV</u>: 4:00 – 5:00

#### **KELT:** The Search for Extrasolar Planets

Derrick Carr '17, Haverford College; Alejandra Escamilla Saldaña '18 & Elif Samanci '18 Wellesley College Advisor: Kim K. McLeod, Wellesley College

# The Effects of Commercial Airline Traffic on LSST Observing Efficiency

Rose Gibson, Wellesley College Advisor: Chuck Claver, LSST

### **Constraining the Sidereal Period and Spin Direction of (2144) Marietta**

Max Kurzner '17, Colgate University Advisor: Stephen Slivan, Wellesley College

### Developing a Methodology to Classify Io's Mountains by Morphology

Tina Seeger '16, Williams College Advisor: Ronadh Cox, Geosciences Department, Williams College

### Modeling Absorption Features in the Reflectance Spectra of KH 15D

Rachel Aronow & Avi Stein, Wesleyan University Advisors: Martha Gilmore & William Herbst, Wesleyan University

# Precise Measurement of the Stark Shift in the Indium 6P1/2 State Using Two-Step Laser Spectroscopy

Allison Carter '16, Williams College Advisor: Tiku Majumder, Physics Department, Williams College

#### **Observation of the 2015 Occultation of Pluto**

Becky Durst '17, Williams College Advisor: Jay M. Pasachoff, Williams College

### **Characterization of Near Earth Asteroids (NEAs)**

Jennifer Gubner, Wellesley College Advisor: Kim McLeod, Wellesley College

## **Infrared SED Decomposition of Active Galactic Nuclei**

Emily Stump, Williams College Advisor: Jack Gallimore, Bucknell University

# Exploring Extragalactic Emission: The Ha Dot Survey

Rayna Rampalli, Wellesley College Advisor: John Salzer, Indiana University

### It's a Tight Squeeze: Reducing Noise Levels of Quantum Correlated Squeezed Light

Anneliese Rilinger, Williams College Advisors: Kevin Jones, Williams College and Paul Lett, Joint Quantum Institute

# Second Harmonic Generation and Magnetic Contrast versus Laser Intensity for Materials of Interest in Spin Hall Effect Spin Current Generation

Sarah Stevenson, Williams College Advisor: Jeffrey Bokor, University of California Berkeley