

Eta Carinae, LBVs, and Supernova Impostors

June 19 - 23, 2017

University of Pittsburgh, Pittsburgh, PA, USA

A five-day workshop which will bring both observational and theoretical researchers together to discuss massive stars, LBVs, and Supernova (SN) Impostors will be held June 19 - 23, 2017 at the University of Pittsburgh.

With the advent of new surveys, many more SN impostors and peculiar SNe are being found. These discoveries are challenging our current understanding of massive star evolution. Some of the questions we intend to address at the workshop are:

What is the relationship between massive stars, LBVs and SN impostors?

What can current observations tell researchers about massive star evolution and instabilities?

Are Type IIn SNe related to classical LBVs or do they arise from another mechanism?

Do LBVs originate from the most massive stars?

Is binarity required for a star to go through the LBV stage?

How important is inflation for massive star outbursts?

How do massive stars influence enrichment leading to molecule and dust formation?

Our tentative schedule, intended to maximize discussion at each stage, will devote the first three to four days to massive stars, LBVs and SN impostors in general. The last one to two days will focus more on Eta Carinae, one of the most enigmatic objects in our local group of galaxies and one of the most massive and luminous stars in our galaxy that is conveniently in the LBV stage. Despite extensive investigations we still have many outstanding questions: Which star underwent the outburst? What caused the outburst? How much material was ejected? What is the enriched ejection telling us about molecules and dust formation? Were there only the 1840s and 1890s events, or were there previous massive ejections in addition to the pre-LBV winds? What is the evolutionary stage of the secondary star?

The workshop will examine how this massive binary fits into our understanding of these questions and discuss the studies, both theoretical and observational, that are needed as the 2020 periastron event approaches. We will also address what other massive stars, LBVs and SN impostors can and should be studied to provide new insights into massive star evolution.

A block of rooms has been reserved at Hilton Garden Inn Pittsburgh in Oakland (Pennsylvania), which is within walking distance of the conference room.

Details will be placed on the conference website at

http://kookaburra.phyast.pitt.edu/hillier/Eta2017_workshop in the near future. There is no registration fee.

As attendance is limited to approximately 35 participants, all attendees must be approved by the Scientific Organizing Committee. If you are interested in attending the workshop, and in presenting a talk, please send an email to John Hillier at hillier@pitt.edu. Please use the words "Pittsburgh Workshop" in the subject line.

Weblink: http://kookaburra.phyast.pitt.edu/hillier/Eta2017_workshop

Email: hillier@pitt.edu