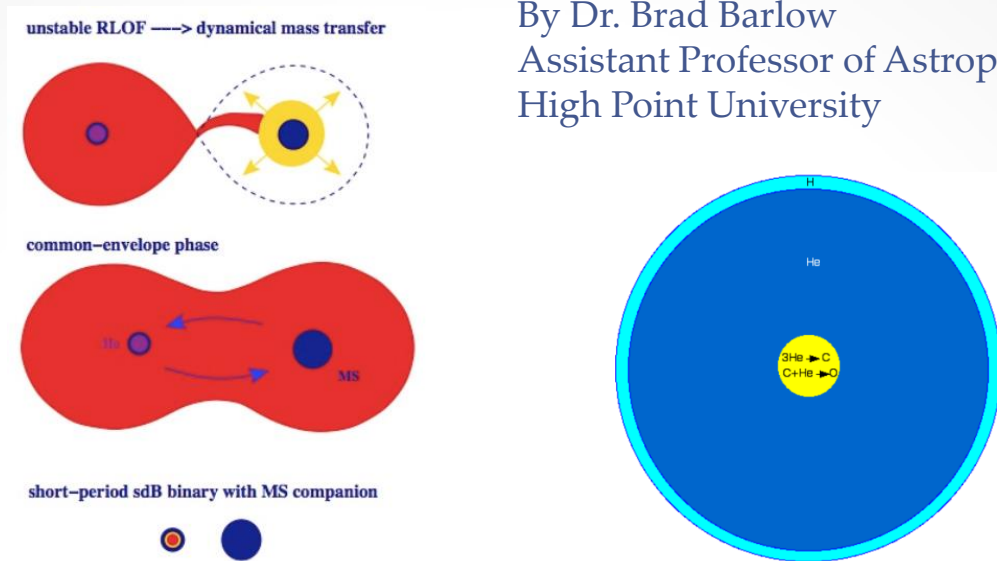


# Hot Subdwarfs: the Coolest Little Hot Stars in the Galaxy

By Dr. Brad Barlow  
Assistant Professor of Astrophysics  
High Point University



The enigmatic hot subdwarf stars represent one of the least-understood stages of stellar evolution. Theory shows they likely formed from red giants that lost their outer hydrogen envelopes due to Roche lobe overflow and common envelope interactions with a nearby companion star. Observations seem to support this idea as the large majority of hot subdwarfs are, in fact, in binaries. Although binary population synthesis models are generally successful at forming hot subdwarf systems, these models are relatively unconstrained and fail at predicting their orbital periods and companion masses. Here I will give a brief introduction to hot subdwarfs and discuss why they are important for improving our understanding of stellar evolution, hot Jupiter exoplanet systems, and even Type 1a supernovae.

Friday, April 22, 2016  
4:00-5:00 PM  
Olin Physical Sciences  
Room 140