

*Workshop*

***Stellar End Products: The Low Mass - High Mass Connection***

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**Title:**

The nature in broad-band photometry of long secondary periods in AGB stars

**Abstract:**

The long secondary periods (LSPs) in AGB stars are one of the most mysterious phenomenon in red giant variables. The length of LSPs is roughly 400d – 1500d, which is about 4 times longer than the periods of the radial fundamental mode of Mira type variables in the same luminosity. We examined the nature of LSPs by using long-term V, I, J, H, K band photometric data provided by OGLE and IRSF/SIRIUS camera and found that the color variations during LSP cycles are different between oxygen rich stars and carbon stars.