



Contribution ID: 344

Type: Oral Presentation

Tidal Effects on Pulsation Modes in Close Binaries

Thursday, 10 July 2014 14:00 (20 minutes)

Abstract content
 (Max 300 words)
 [Formatting & Special chars](http://events.saip.org.za/getFile.py/?target=_blank)

Light curve data from the Kepler satellite on pulsating eclipsing Algol-type binary systems display a peculiar feature: the primary shows preferential excitation of putative pulsation modes with frequencies resonant with the orbital frequency of the binary system. A proposed explanation of this phenomenon is tidal driving of pulsations by the secondary. This paper presents a preliminary calculation of the effects of linear representations of tides on the pulsation frequencies of a polytropic primary.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD)?

MSc

Main supervisor (name and email) and his / her institution

Fabio Frescura
 fabiofrescura@gmail.com
 University of the Witwatersrand

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

Yes

Primary author: Mr PREDIERI, Massimo (University of the Witwatersrand)

Co-authors: Dr ENGELBRECHT, Christian (University of Johannesburg); Dr FRESCURA, Fabio (University of the Witwatersrand)

Presenter: Dr FRESCURA, Fabio (University of the Witwatersrand)

Session Classification: Space

Track Classification: Track D1 - Astrophysics