



# PHYSICS AND ASTRONOMY SEMINAR

## **Dr. Samantha Lawler**

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### **“What on Earth is Fomalhaut B?”**

#### Abstract

Fomalhaut hosts a beautiful debris disk ring and a directly imaged planet candidate, Fomalhaut b, which seems to continually defy expectations. Originally thought to be a Jovian-mass planet constraining the ring, its unexpected spectral properties and highly eccentric, possibly ring-crossing orbit have completely ruled out that possibility. In this talk I will discuss some of the many theories to explain the weird properties of Fomalhaut b, including a large circumplanetary ring, a system of irregular satellites, and a recent small body collision. I will also discuss my recent ongoing work using the Canada-France Ecliptic Plane Survey model of the Kuiper Belt to estimate the likelihood of a recent collision in the Fomalhaut system.

Wednesday, June 25, 2014

10:30 a.m.

Engineering/Computer Science Building

Room 108