

SOCIETY OF PHYSICS STUDENTS (SPS) PRESENTS:

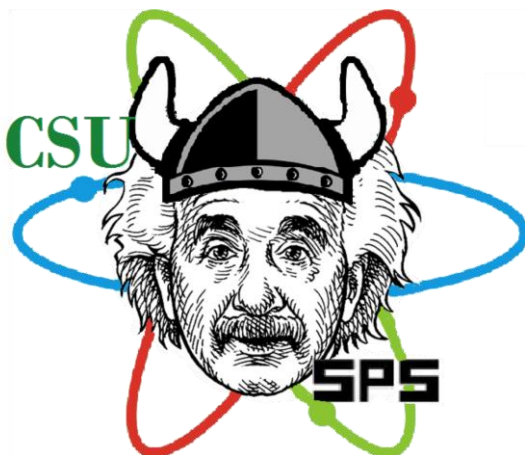
# Detecting Gravitational Waves from Supermassive Black Hole Binaries



*Professor Dan Stinebring*

*Physics and Astronomy,  
Oberlin College*

Gravitational waves (GW) have never been directly detected, and the ability to do so will revolutionize astrophysics. In particular, we will be able to directly observe GW radiation from some of the most extreme events in the universe. Astronomers worldwide are involved in an effort to directly detect GWs using millisecond pulsars located throughout our Galaxy. I will review the basic principles of operation and the status of this effort. Our contribution at Oberlin focuses on correcting the pulsar signal for its passage through non-empty interstellar space. I will highlight some of our recent results, and place this in the context of other gravitational wave searches (e.g. LIGO).



**WHERE: SR - 151**

**WHEN: 11:30am-12:15pm**

**THURSDAY, SEPT. 24, 2015**

**Pizza and Soda are provided!**