

# SEMINAR IN PHYSICS

FRIDAY, JANUARY 29, 2016

3:30-4:25 · Ross 0220

~ Refreshments! ~

## **Black Holes & General Relativity**

Brandon Saldivar, UNC Physics student

Research dates back to 1905-1915 when Einstein first developed his theories of special and general relativity. His theories helped explain the vast and vague concept of gravitation and the structure of spacetime. The theory of relativity is used today in many areas ranging from electronics, such as the global positioning system (GPS), to the formation of black holes. Thanks to the theory of general relativity, we have increasing knowledge of what black holes can do and how they may tie to the creation of galaxies. There are many mysteries yet to be discovered, not only about black holes but also the space around them.

## **The Triboelectric Effect and Ways of Producing Clean Energy**

Uriel Aragon, UNC Physics student

The Triboelectric effect is a form of electrification in which certain materials become electrically charged after they come into frictive contact with a different material. One of the newest ways of creating energy comes from the flapping of a flag.