

SEMINAR IN PHYSICS

Friday, February 9, 2018

3:30-4:25 - Ross 0220

· Refreshments ·

Tubing Into the Future

Sergio Chacon
UNC Physics Major

Carbon nanotubes may hold the key to the future due to their promising applications in electronics, alternative energy sources, and sensors. Though it is still unclear how far the applications of carbon nanotubes will reach, they have already have earned a place within scientific research.

I will be presenting some of the properties of the different forms of nanotubes, and how they are being implemented in electronics, alternative energy sources, and sensors.

Gravitational Lensing: A Unique Probe of Dark Matter and Dark Energy

Michelle Cline
UNC Physics Major

Gravitational lensing is a strange consequence of the curvature of space-time predicted by Einstein in his theory of general relativity. For years the utility of gravitational lensing was in question until Zwicky observed gravitational lensing of the twin quasar Q0957+561 about an entire galaxy. Even the most massive of stars could create minimal lensing.

Since then, astronomers and astrophysicists have used this effect to view distant galaxies and exoplanets. In the future, gravitational lensing may help us detect the undetectable dark matter or peer into the mysterious world of dark energy. In this presentation we will explore gravitational lensing, its history, current usage, and future.