TEP Seminar
Tuesday, November 15th @ 4pm
Schwinger Lounge

“The Facts and Fantasies of Angular Momentum”

Chia-Hsien Shen (UCSD)

Abstract: Angular momentum is a basic and yet mysterious quantity. In this talk, I will discuss the angular momentum carried away by radiation in a classical scattering process. I will show new formulae for angular momentum in electromagnetism and gravity and discuss several counter-intuitive features. The radiated linear/angular momentum can be used to bootstrap the dissipative force in binary inspiral, which is relevant to current and future gravitational-wave experiments. Combining the information from two-body scattering in GR, we bootstrap the binary dynamics to state-of-the-art precision without solving the Einstein equations.