

Juhi Jang, Courant Institute

## **Vacuum in Gas and Fluid dynamics**

### ABSTRACT:

The study of vacuum is important in understanding the motion of a gaseous star or shallow water. The mathematical difficulty is the degeneracy caused by vacuum. In this talk, I will review some interesting problems of vacuum states arising in gas and fluid dynamics, and present the current status in the understanding of compressible Euler flows near vacuum. My contribution to the subject is joint with Nader Masmoudi.