1108-35-326   **Tao Huang**, **Chun Liu**, **Fanghua Lin** and **Changyou Wang***, 150 N. University Street, West Lafayette, IN 47907. *Existence of finite time singularity of nematic liquid crystal flow in dimension three.* Preliminary report.

In this talk, I will present two constructions of finite time singularity for the hydrodynamic flow of nematic liquid crystals, which is a simplified version of Ericksen-Leslie system modeling the macroscopic motion of the orientation director of nematic liquid crystal molecules and the fluid velocity field. This is a joint paper with Tao Huang, Chun Liu, and Fanghua Lin. (Received January 17, 2015)