Huajun Gong and Tao Huang*, NYU-ECNU Institute of Mathematical Sciences, at NYU Shanghai, and Jinkai Li. Nonuniqueness of weak solutions to the nematic liquid crystal flows.

For suitable initial data, we construct infinitely many weak solutions to the nematic liquid crystal flows in dimension three. All the solutions are in the axisymmetric class with "backward bubbling" at a large time and bounded energy for any finite time. (Received August 30, 2016)