Huajun Gong, Tao Huang\* (taohuang@wayne.edu) and Changyou Wang. Existence of global weak solutions to the compressible Ericksen-Leslie system in dimension one.

We consider the compressible Ericksen-Leslie system of liquid crystal flows in one dimension. A global weak solution is constructed with initial density  $\rho_0 \ge 0$  and  $\rho_0 \in L^{\gamma}$  for  $\gamma > 1$ . (Received August 05, 2021)