Well-posedness and stability of the Ericksen-Leslie system for incompressible nematic liquid crystal flow

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We will discuss the Ericksen-Leslie (E-L) system modeling the incompressible nematic liquid crystal flow. We prove the well-posedness and long-time behavior of the E-L system under proper assumptions on the viscous coefficients. In particular, we discuss the connection between Parodi's relation and stability of the E-L system.