



Einladung zum Oberseminar Mathematik in den Naturwissenschaften

Julius-Maximilians-Universität Würzburg
Lehrstuhl für Mathematik in den Naturwissenschaften

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Weak compactness of simplified nematic liquid flows in 2D

For any bounded smooth domain in dimension two, we will establish the weak compactness property of solutions to the simplified Ericksen-Leslie system for both uniaxial and biaxial nematics, and the convergence of weak solutions of the Ginzburg-Landau type nematic liquid crystal flow to a weak solution of the simplified Ericksen-Leslie system as the parameter tends to zero. This is based on the compensated compactness property of the Ericksen stress tensor, which is obtained by the L^p -estimate of the Hopf differential for the Ericksen-Leslie system and the Pohozaev type argument for the Ginzburg-Landau type nematic liquid crystal flow.

Ort: Zoom video conference

Zeit: Freitag, 24.07.2020 um 15:00 Uhr

**You are cordially invited to this lecture. Request the Zoom link from
anja.schloemerkemper@mathematik.uni-wuerzburg.de**

gez. Anja Schlömerkemper