



Institut für
Angewandte Mathematik



Leibniz
Universität
Hannover

Oberseminar Analysis und Theoretische Physik

**Prof. Dr. Matthias Wilke
(Martin-Luther-Universität Halle)**

On the general anisotropic Ericksen-Leslie model

The Ericksen-Leslie model for nematic liquid crystal flows in a bounded domain with general Leslie and anisotropic Ericksen stress tensor in the case of an isothermal and incompressible fluid is studied.

Of central importance is a fully nonlinear boundary condition for the director field, which, in this generality, is necessary to guarantee that the system fulfills physical principles. The system is shown to be locally, strongly well-posed in the L_p -setting. More precisely, the existence and uniqueness of a local-in-time, strong L_p -solution to the general system are proven.

**Dienstag, 22.10.2024, 15:00 Uhr, Raum c311
Hauptgebäude der Universität**

**Veranstalter: Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher,
Prof. Dr. Johannes Lankeit, Prof. Dr. Elmar Schrohe, Prof. Dr. Alexander
Strohmaier, Prof. Dr. Christoph Walker, Dr. Alden Waters**