



Institut für
Angewandte Mathematik



Leibniz
Universität
Hannover

Institut für Angewandte Mathematik
18.11.2022

Oberseminar Analysis und Theoretische Physik

**Prof. Dr. Michael Winkler
(Universität Paderborn)**

Can primitive chemotaxis generate spatial structures?

Parabolic models for the collective behaviour in populations of chemotactically migrating cells are considered. A focus will be on cases in which individuals are particularly primitive in the sense that beyond a partially oriented movement toward increasing concentrations of a nutrient, further activity can essentially be neglected. Recent developments in the analysis of such nutrient taxis systems are to be described, with a special emphasis set on mathematical challenges related to the fundamental question how far models of this type are capable of adequately reflecting aspects of colourful dynamics known from experimental observations.

**Dienstag, 13.12.2022, 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. Christoph Walker**