



Contribution ID: 448

Type: Oral Presentation

Modelling interacting filaments in motility assays

Tuesday, 9 July 2013 14:30 (20 minutes)

Abstract content
 (Max 300 words)

Motility assays are two-dimensional arrays in which certain types of biofilaments are pushed along the surface in a direction given by the orientation of the the filament. The filaments interact with each other and with geometrical obstacles. We present a theoretical description for the resulting collective motion of the filaments. This rests on a suitable formalism for the directional re-orientation mechanism, that will be described in detail in this talk. We shall also discuss stochastic aspects of the velocity profile of individual filaments.

Apply to be
 considered for a student
 award (Yes / No)?

No

Would you like to
 submit a short paper
 for the Conference
 Pro-ceedings (Yes / No)?

No

Primary author: Prof. MÜLLER-NEDEBOCK, Kristian (University of Stellenbosch)

Presenter: Prof. MÜLLER-NEDEBOCK, Kristian (University of Stellenbosch)

Session Classification: Applied

Track Classification: Track F - Applied Physics