



"Soft-Matter Seminar"

The mechanics of swimming microorganisms

Prof. Tom Powers

Division of Engineering, Brown University

Abstract:

I will discuss several model problems inspired by the mechanics of swimming microorganisms. First we, develop a simple theory to determine how the shape of a beating flagellum depends on medium properties such as viscosity. Then, inspired by the coordination of beating cilia, we present an experimental model for hydrodynamic synchronization. Finally, we study the swimming velocity of a swimmer with prescribed stroke in a complex fluid.

Montag, den 20.04.2009

16:00 Uhr

Raum PH 3343

Prof. Dr. Roland Netz
Physik-Department T 37, Technische Universität München, Theoretische Physik
85747 Garching