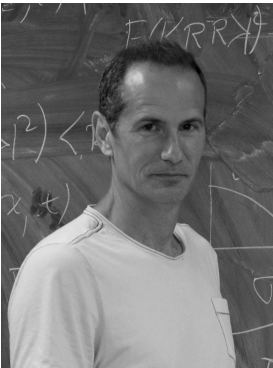


JOINT COLLOQUIUM

MATHEMATICS AND BIOLOGY

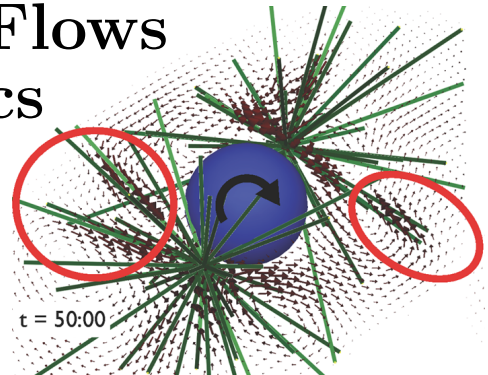
Supported by the Faculty Senate's Lectures and Forums Committee



Biological Flows and Mechanics

Michael Shelley

Applied Math Lab
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ABSTRACT: The mechanics of fluids and structures can sometimes be extremely useful in explaining biological phenomena. While bird flight and fish swimming are well-known examples, I will discuss two other cases where the role of mechanics seems not so obvious but turns out to be central and even surprising. The first concerns understanding experimental observations of a simple undulating organism – the nematode *C. elegans* – negotiating a fluid-filled space full of obstacles. The second case focuses on the pronuclear complex in *C. elegans* embryo and how it achieves proper position and orientation within the cell so that early development can successfully proceed.

MONDAY, 28 NOVEMBER 2011

LECTURE AT 2:00 PM – 3:00 PM

ROOM 617, WACHMAN HALL

COFFEE AND TEA AT 1:30 PM – 2:00 PM

EVERYBODY IS INVITED.

