

## Programa de Pós Graduação em Modelagem Computacional

## Ciclo de Palestras

(01/2014)

**DATA:** terça-feira, 14 de janeiro de 2014

**HORÁRIO**: 14h

LOCAL: Anfiteatro 01 – Prédio Engenheiro Itamar Franco

(Faculdade de Engenharia)

"Biofilms: Linked for Life"

Understanding Biofilms through Modeling and Simulation

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## Abstract:

Most microbial organisms do not exist as individuals, but within communities of interconnected members. In this presentation, we describe biofilm physiology and the development of a simulation of such biofilm structural growth appropriate for modeling, simulation, or high performance computing. Consideration of cellular automaton simulations, boundary conditions, and diffusion can empower students to develop similar simulations for other applications. Moreover, extensions of the basic model can illustrate and motivate the need for high performance computing in computational science.

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Pós-Graduação em Modelagem Computacional. CAPES.