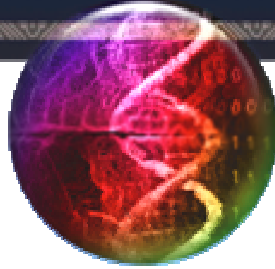


Center for  
**Computational  
Biology (CCB)**



*Presents*

**Nicholas Ayache, PhD**

Research Director, Epidaure/Asclepios Laboratory, INRIA

**Monday, October 24, 2005 at 2 PM**

**Brain Mapping Center #221, 660 Charles E. Young Drive South**

***Computational Models for Medical Image Analysis***

Medical image analysis brings about a revolution to the medicine of the 21st century, introducing a collection of powerful new tools designed to better assist the clinical diagnosis and to model, simulate, and guide more efficiently the patient's therapy. A new discipline has emerged in computer science, closely related to others like computer vision, computer graphics, artificial intelligence and robotics.

In this talk, I will describe the increasing role of computational models of anatomy and physiology to guide the interpretation of complex series of medical

images, and illustrate my presentation with three applications: the modeling and analysis of 1) brain variability from a large database of cerebral sulci (joint work with Loni at UCLA), 2) tumor growth in the brain and 3) heart function from a combined exploitation of cardiac images and electrophysiology.

I will conclude with a presentation of some promising trends, including the analysis of in vivo microscopic images.

References available at  
<http://www-sop.inria.fr/epidaure/BIBLIO/>

***For information, please contact Ivo Dinov, PhD at 310.206.2101***

<http://www.ccb.ucla.edu>

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<http://www.loni.ucla.edu>