



2007 - 2008



**MATHEMATICS COLLOQUIUM SERIES
UNIVERSITY OF CENTRAL FLORIDA**

Dr. Zoi Rapti
Department of Mathematics
University of Illinois at Urbana Champaign

will speak on

Predicting Denaturation and Functional Sites in DNA

ABSTRACT: In this talk we'll give a brief introduction to DNA and describe those of its main features that are accounted for in the models that we use. In particular, we'll review the Peyrard--Bishop--Dauxois model, and a relatively recently developed Ising-type model originated by Frank--Kamenetskii and collaborators. Our main focus is the investigation of the correlation between the propensity of the DNA double helix to dissociate and the location of functional sites. We'll present some of our findings and conclude with the future directions of our research.

DATE: **Thursday, January 31, 2008**

TIME: **10:30 – 11:30am**

PLACE: **MAP 318**

Refreshments will be served