



The University of Western Ontario

Faculty of Science

Department of Applied Mathematics

APPLIED MATHEMATICS COLLOQUIUM

Date: Wednesday, November 28, 2007

Time: 2:30 pm

Location: Middlesex College Room 204

Protein Folding as a System for Biologically-inspired Physics

Dr. Steven Plotkin

Department of Physics

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Abstract:

The protein folding problem has occupied the minds of a diverse group of scientists for about the last half-century. In this time, much progress has been made and many questions answered. In the first half of this talk, I will survey how the application of fundamental physical principles has helped us understand some of the central problems of protein folding. In the second half of the talk I will pose and then answer a specific outstanding question in biomolecular self-organization and structural comparison, namely how to generalize the notion of distance to higher dimensional objects such as polymers.

Finally I will discuss applications of this metric to the protein folding problem.