

PIMS Mathematical Biology Seminar



Monday, March 3, 2008 3 pm - 657 CAB

Omer Dushek University of British Columbia

Analysis of membrane-localized binding kinetics with FRAP

Interactions between plasma membrane-associated proteins on interacting cells are critical for many important biological processes. Few experimental techniques, however, can accurately determine the association and dissociation rates between such interacting pairs when the two molecules diffuse on apposing membranes or lipid bilayers.

I will describe how fluorescence recovery after photobleaching (FRAP) can quantify these reaction rates. The mathematical tools used include asymptotic analysis, nonlinear curve fitting, Akaike's Information criterion.

Join us for refreshments in CAB 549 immediately following the seminar

CENTRE FOR MATHEMATICAL BIOLOGY
MATHEMATICAL & STATISTICAL SCIENCES
UNIVERSITY OF ALBERTA