



Mês de: Setembro 2010

BIOMATEMÁTICA

Dia 14 de Setembro (terça-feira), às 16h, na Sala B3-01

“Seasonal two strain dengue model:
complex dynamics and its implications for data analysis”

Maira Aguiar

(CMAF)

Abstract:

Models on dengue fever epidemiology have previously shown critical fluctuations with power law distributions and also deterministic chaos in some parameter regions due to the multi-strain structure of the disease pathogen. In our first model including well known biological features, we found a rich dynamical structure including limit cycles, symmetry breaking bifurcations, torus bifurcations, coexisting attractors including isola solutions and deterministic chaos (as indicated by positive Lyapunov exponents) in a much larger parameter region, which is also biologically more plausible than the previous results of other researches. Based on these findings we will investigate the model structures further including seasonality.

Local:
COMPLEXO INTERDISCIPLINAR
Av. Prof. Gama Pinto, 2
1649-003 Lisboa

