

CALIFORNIA STATE UNIVERSITY, LONG BEACH

THE MATHEMATICS COLLOQUIUM

presents

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speaking on

*A mathematical model for the three-therapy for HIV infection:
Is Magic Johnson a great fighter or a scientific mystery?*

Friday, May 6, 2005

12:00PM-1:00PM

LA5-267

Abstract: We introduce a model to describe the dynamics of HIV infection when the patient undergoes a combination therapy. Treating the effectiveness of the drug as a dynamical variable we show the possibility of very long latency periods. During that period, the viral load goes below the detectable level. Unfortunately these periods are followed by a rebound, then followed by a re-establishing of the conditions previous to the therapy. The dynamics is in good qualitative agreement with the available clinical data. In particular it explains Magic Johnson's longevity.