

# Modeling HIV persistence and slow immune cell depletion

Libin Rong

## **Abstract**

HIV infection is still a serious health problem in the world. Effective combination therapy can control viral replication but cannot eradicate the virus. Mathematical models, combined with experimental data, have provided important insights into HIV dynamics and immune responses. In this talk, I will present some work on modeling HIV infection and treatment, such as HIV latency and persistence, viral blips, and the slow time scale of immune cell depletion. These results improve our understanding of the virus and T cells dynamics in HIV-infected individuals.