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Naveen K. Vaidya* (nvaidya@sdsu.edu). *Role of the immune status of infected individuals on the transmission dynamics of HIV: From within-host to between-hosts models.*

Previous studies have suggested that HIV transmission highly depends on the immune status, particularly antibody levels, of the virus-source partners, indicating that the within-host immune status of infected individuals may have important role on the between-hosts transmission dynamics of HIV epidemics. In this talk, I will present mathematical models to estimate the effect of source partner's antibody-level status on the per-contact probability of HIV transmission. Using estimated probability in the between-hosts models, I will discuss how the source-host's disease status affects the HIV transmission dynamics in a community.

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