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**Sivan Leviyang\*** (sr286@georgetown.edu). *Modeling Early HIV Infection.*

During the first weeks of an HIV infection, the immune system mounts a vigorous response, most notably through T cells known as cytotoxic T lymphocytes (CTLs). CTLs kill HIV infected cells, exerting selective pressure on the infecting viral population. In turn, through mutation, HIV evades CTL killing, leading to a complex interplay between immune response and viral evolution. In this talk I will first introduce a model of early HIV infection and then, based on this model, I will discuss approaches for quantifying and inferring the strength of CTL mediated selection in the first weeks of HIV infection. (Received August 08, 2013)