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*Multi-state Models for Viral Load Patterns*

In many cohorts of individuals infected with the human immune deficiency virus (HIV), viral load is measured at intermittent visit times. Multi-state models with states defined by viral load levels provide a simplistic but useful approach for examining viral load dynamics, and phenomena such as viral blips or viral rebound. In this talk we consider the effect of the gap time between viral load measurements on the estimation of process parameters. Insights gained also apply to other longitudinal studies where biomarker measurements are taken at intermittent visits.