
Current vaccine development for HIV has been targeted to induce protective T cells. Clinicians and immunologists rely on single-cell technologies to distinguish and identify the T cell responses to vaccination. With rapid technological advancements pushing up the data volume, dimensionality and complexity, such single-cell data raises new analysis challenges. During this talk, I will present a set of statistical methods to address some challenges in HIV vaccine research. (Received August 17, 2019)