Wei Ho\* (weiho@umich.edu). The Hasse principle for some genus one curves. Preliminary report.

We will give a gentle introduction to problems related to the Hasse principle for certain genus one curves. We will describe how to compute the proportion of everywhere locally soluble curves of a specific type (joint work with Tom Fisher and Jennifer Park), and show that the Hasse principle fails for a positive proportion of these curves (joint work with Manjul Bhargava). (Received January 28, 2019)