Major and minor slip-events in frictional stick-slip\textsuperscript{1}  GEORGIOS TSEKENIS, DEMET TATAR, SHMUEL RUBINSTEIN, DAVID WEITZ, MICHAEL AZIZ, FRANS SPAEPEN, Harvard Univ — Several universal phenomena characterize friction that are independent of the materials involved such as the logarithmic aging of the static friction coefficient and the logarithmic velocity weakening of the dynamic friction coefficient. We study dry friction between rough surfaces with programmed statistical profiles. By measuring the displacement field at the frictional interface we observe stick-slip behavior which reveals two kinds of slip: major events that tend to grow large and unbounded and minor events that usually stay small and bounded.

\textsuperscript{1}Research supported by Harvard MRSEC Program under NSF contracts DMR-0820484, DMR-1420570