**DISC User Manual**

April 2019

Welcome to DISC! DISC is an open source (GNU license) MATLAB package for time series idealization (i.e. identifying significant states and transitions). We enhance change-point detection algorithms with divisive clustering scheme to accelerate the typical speed of time-trajectory analysis by orders of magnitude while retaining or improving accuracy. We have designed the DISC framework to be a flexible approach, with applications primarily in single-molecule data, such as smFRET and force spectroscopy. The full details of this work are described in “High-Throughput Single-Molecule Analysis via Divisive Segmentation and Clustering (manuscript in preparation)”.