Two raw data files were combined into one dataset. Each column represented data collected from a worm, which is the velocity of wild type *C. elegans* generated from five minutes camera tracking (0.133s per frame) by using Wormlab. The data were smoothed over six frames. Blank cells represented miss tracking timepoints. To sperate forward events from backward events, we defined a forward event as positive speed continuing more than six frames and vice versa.