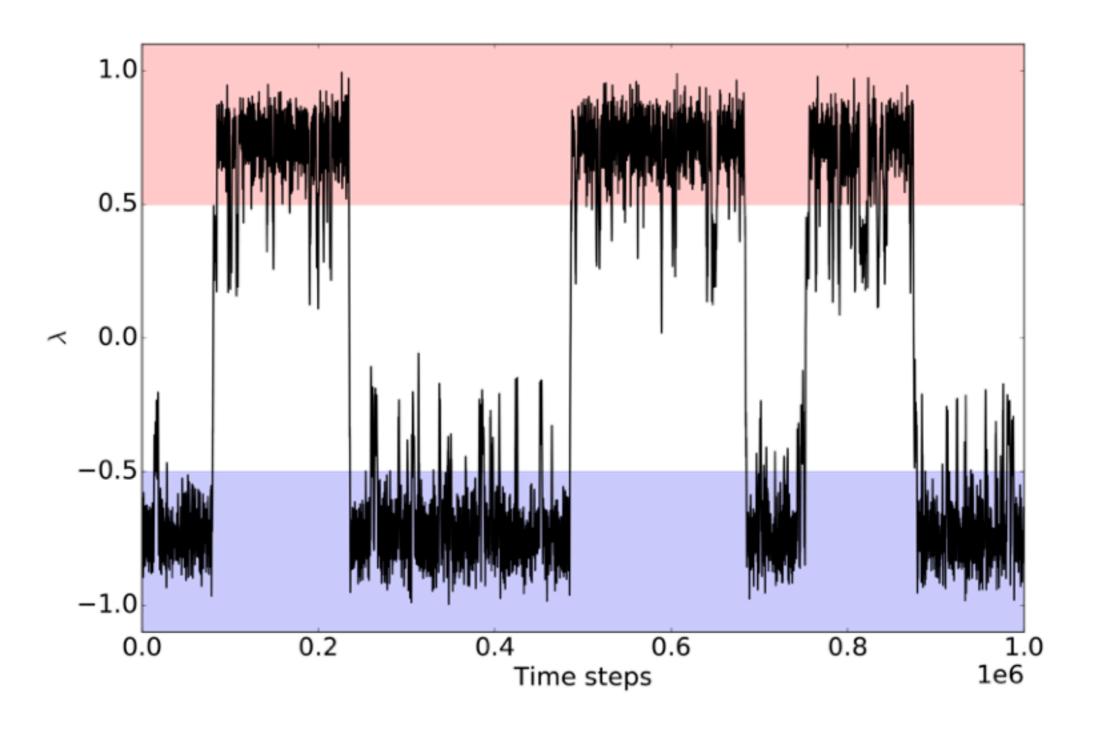
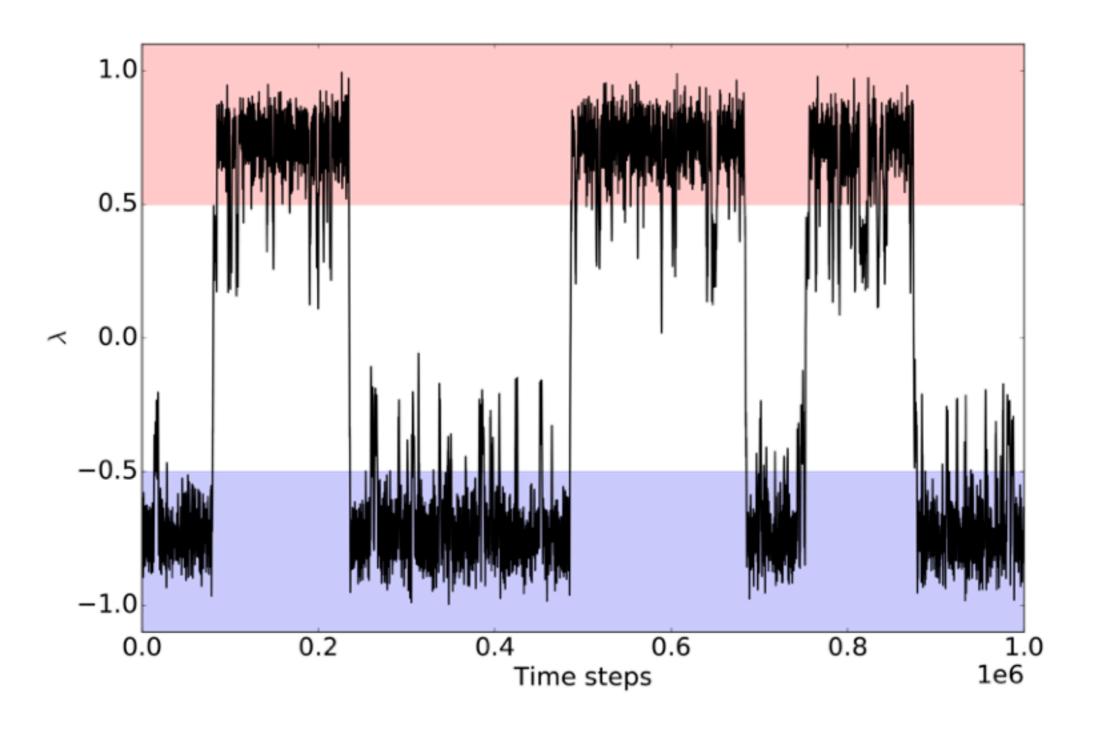
## What makes an event "rare"?



Separation of time scales: fundamental time scale vs. frequency of event

## What makes an event "rare"?



Biomolecular Systems: ~ 1/ms is common Requires 10<sup>12</sup> time steps of ~ 1 fs