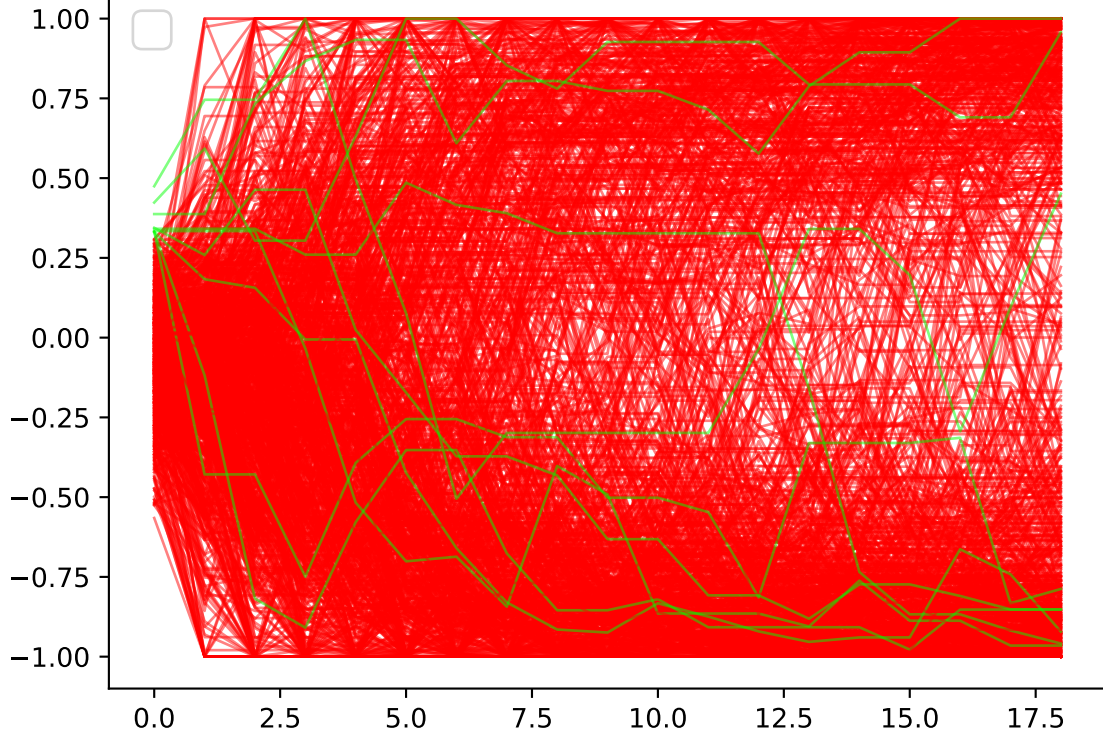epsilon: 1, mu: 0.5, gamma: 0, mode: normal, noise: 0, minority fraction