#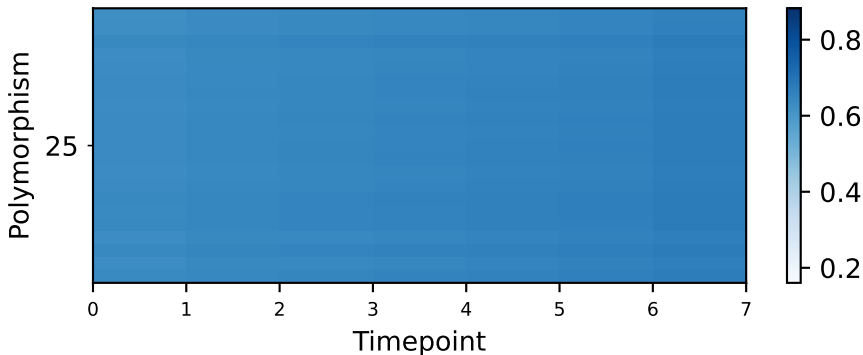 simulation_center_means