

111. Zvi Artstein, **Pontryagin maximum principle for coupled slow and fast systems**. Control and Cybernetics 38 (2009), 1003-1019.

Abstract. When slow and fast controlled dynamics are coupled, the variational limit, as the ratio of time scales grows, is best depicted as a trajectory in a probability measures space. The effective control is then an invariant measure on the fast state-control space. The paper presents the form of the Pontryagin Maximum Principle for this variational limit and examines its relation to the Maximum Principle of the perturbed system.

For a copy of this paper send a request to zvi.artstein@weizmann.ac.il