## Pontryagin maximum principle for coupled slow and fast dynamics

## ZVI ARTSTEIN

The Weizmann Institute of Science, Israel *e-mail*: zvi.artstein@weizmann.ac.il

## Abstract

When slow and fast controlled dynamics are coupled, the nominal dynamics 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 form of the Pontryagin principle in this situation, is the subject of the presentation.