Learning the Dynamics of Articulated Tracked Vehicles

Authors : Mario Gianni, Manuel A. Ruiz Garcia, Fiora Pirri

Abstract : In this work, we present a Bayesian non-parametric approach to model the motion control of ATVs. The motion control model is based on a Dirichlet Process-Gaussian Process (DP-GP) mixture model. The DP-GP mixture model provides a flexible representation of patterns of control manoeuvres along trajectories of different lengths and discretizations. The model also estimates the number of patterns, sufficient for modeling the dynamics of the ATV.