

Safe Sequential Path Planning of Multi-Vehicle Systems Under Presence of Disturbances and Measurement Noise

Somil Bansal*, Mo Chen*, Claire J. Tomlin

Abstract—

I. INTRODUCTION

II. PROBLEM FORMULATION

III. SOLUTION VIA DOUBLE-OBSTACLE HJI VI AND SPP

IV. NUMERICAL IMPLEMENTATION

V. CONCLUSIONS AND FUTURE WORK

This work has been supported in part by NSF under CPS:ActionWebs (CNS-931843), by ONR under the HUNT (N0014-08-0696) and SMARTS (N00014-09-1-1051) MURIs and by grant N00014-12-1-0609, by AFOSR under the CHASE MURI (FA9550-10-1-0567). The research of J.F. Fisac has received funding from the “la Caixa” Foundation.

* Both authors contributed equally to this work. All authors are with the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley. {mochen72, somil, tomlin}@eecs.berkeley.edu