

Decision Theoretic Approaches for Focussed Bayesian Fusion

Jennifer Sander¹, Jürgen Beyerer^{1,2}

¹ Lehrstuhl für Interaktive Echtzeitsysteme, Institut für Anthropomatik (IFA),
Karlsruher Institut für Technologie (KIT), Adenauerring 4, 76131 Karlsruhe

²Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung IOSB,
Fraunhoferstraße 1, 76131 Karlsruhe

jennifer.sander@kit.edu, juergen.beyerer@iosb.fraunhofer.de

Abstract: Focussed Bayesian fusion is a local Bayesian fusion technique by that high costs caused by Bayesian fusion can get circumvented. This publication addresses globally optimal decision making on the basis of a focussed Bayesian model. Therefore, common decision criteria under linear partial information and in particular principles of lazy decision making are applied. We also present an interval scheme for global posterior probabilities whose informativeness is notably high.