Multi-Agent Epistemic Planning

Enrico Pontelli

Dept. of Computer Science, New Mexico State University epontell@cs.nmsu.edu

Abstract. In this talk, I will provide an introduction to the concepts underlying planning for multi-agent systems in presence of epistemic actions. We will start with a brief overview of some of the logical foundations and then proceed with the analysis of a recent approach to the description of multi-agent epistemic planning problems (using the language mA*). We will explore the syntactic characterization of mA* and its semantics, based on update models. We will also discuss briefly two implementation schemes that have been developed to resolve concrete planning problems.

The talk is meant to be highly introductory and accessible to a broad audience, especially composed of students.