## Preface

A human-level artificially intelligent agent must be able to represent and reason about the world, at some level, in terms of high-level concepts such as entities and relations. The problem of acquiring these rich high-level representations, known as the knowledge acquisition bottleneck, has long been an obstacle for achieving human-level AI. A popular approach to this problem is to handcraft these high-level representations, but this has had limited success. An alternate approach is for rich representations to be learned autonomously from low-level sensor data. Potentially, the latter approach may yield more robust representations, and should rely less on human knowledge-engineering. The papers in this workshop present work and strategies in this latter approach.

Marc Pickett, Benjamin Kuipers, Yann LeCun, Clayton Morrison Workshop Cochairs