Invited Talk

NeuroSymbolic AI: between probability and fuzzyness

Luciano Serafini Fondazione Bruno Kessler, Trento, Italy

Neurosymbolic AI (NeSy) aims to integrate logic-based knowledge representation and reasoning with neural networks. Numerous approaches to NeSy are being developed, and I believe they can be categorized into two main groups, depending on how the quantitative predictions of a neural network are interpreted in the logic. The two main classes are based on fuzzy logic and probabilistic logic. Two representative witnesses of these classes are Logic Tensor Networks (LTN) and DeepProblog.In this presentation, I will provide descriptions of LTN and DeepProblog, and I will attempt to compare the two systems, highlighting their similarities and differences.