

- 840, TITLE: LTL and Beyond: Formal Languages for Reward Function Specification in Reinforcement Learning  
<https://www.ijcai.org/proceedings/2019/840>  
AUTHORS: Alberto Camacho, Rodrigo Toro Icarte, Torny Q. Klassen, Richard Valenzano, Sheila A. McIlraith  
HIGHLIGHT: We propose using reward machines (RMs), which are automata-based representations that expose reward function structure, as a normal form representation for reward functions.
- 841, TITLE: Playgol: Learning Programs Through Play  
<https://www.ijcai.org/proceedings/2019/841>  
AUTHORS: Andrew Cropper  
HIGHLIGHT: We introduce the analogous idea of learning programs through play.
- 842, TITLE: Learning Relational Representations with Auto-encoding Logic Programs  
<https://www.ijcai.org/proceedings/2019/842>  
AUTHORS: Sebastijan Dumancic, Tias Guns, Wannas Meert, Hendrik Blockeel  
HIGHLIGHT: This paper introduces a novel framework for relational representation learning that combines the best of both worlds.
- 843, TITLE: A Comparative Study of Distributional and Symbolic Paradigms for Relational Learning  
<https://www.ijcai.org/proceedings/2019/843>  
AUTHORS: Sebastijan Dumancic, Alberto Garcia-Duran, Mathias Niepert  
HIGHLIGHT: In this work, we compare distributional and symbolic relational learning approaches on various standard relational classification and knowledge base completion tasks.
- 844, TITLE: Learning Hierarchical Symbolic Representations to Support Interactive Task Learning and Knowledge Transfer  
<https://www.ijcai.org/proceedings/2019/844>  
AUTHORS: James R. Kirk, John E. Laird  
HIGHLIGHT: We present a learning strategy embodied in an ITL agent that interactively learns in one shot the meaning of task concepts for 40 games and puzzles in ambiguous scenarios.
- 845, TITLE: EL Embeddings: Geometric Construction of Models for the Description Logic EL++  
<https://www.ijcai.org/proceedings/2019/845>  
AUTHORS: Maxat Kulmanov, Wang Liu-Wei, Yuan Yan, Robert Hoehndorf  
HIGHLIGHT: We address the problem of finding vector space embeddings for theories in the Description Logic ??
- 846, TITLE: How Well Do Machines Perform on IQ tests: a Comparison Study on a Large-Scale Dataset  
<https://www.ijcai.org/proceedings/2019/846>  
AUTHORS: Yusen Liu, Fangyuan He, Haodi Zhang, Guozheng Rao, Zhiyong Feng, Yi Zhou  
HIGHLIGHT: To address this issue, we create IQ10k, a large-scale dataset that contains more than 10,000 IQ test questions.
- 847, TITLE: Synthesizing Datalog Programs using Numerical Relaxation  
<https://www.ijcai.org/proceedings/2019/847>  
AUTHORS: Xujie Si, Mukund Raghothaman, Kihong Heo, Mayur Naik  
HIGHLIGHT: In this paper, we present Difflog, a technique to extend the logic programming language Datalog to the continuous setting.