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, Toryn 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, Wannes 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 EL++.

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.