RSS 2021 Workshop on
Declarative and Neurosymbolic Representations in Robot Learning and Control

A Full-day Virtual Event | July 12-16, 2021 (TBD) | https://dnr-rob.github.io/

Themes:

This is a joint workshop with two themes that share common interests and motivations.

1. **Declarative knowledge in learning and control of robot behaviors:** For the purposes of explainability, abstraction, efficiency, or robustness, declarative knowledge is being incorporated into the decision-making process. We aim to explore novel ways to leverage complementary features of the different forms of decision making in order to inform the future research of deliberative systems relying on declarative knowledge that can be learned from, and shared with, humans.

2. **Neurosymbolic robotics for learning symbolic representations from sub-symbolic representations:** Neurosymbolic AI has emerged to integrate successful ideas in deep learning and classical symbolic reasoning in a single framework. Such a framework will have the desirable perception abilities of deep networks for bottom-up computation whilst allowing the system to make symbolic reasoning for top-down computation.

Invited Speakers:

Masataro Asai IBM Research	**Joyce Chai** U of Michigan	**Sonia Chernova** Georgia Tech	**Anthony Cohn** U of Leeds
Katerina Fragkiadaki CMU	**Nick Hawes** U of Oxford	**Leslie Kaelbling** MIT	**George Konidaris** Brown U
Ben Kuipers U of Michigan	**Luís C. Lamb** UFRGS	**Cynthia Matuszek** UMBC	**Sheila McIlraith** U of Toronto

Submissions:

We accept **regular papers** (up to 8 pages of unpublished work) and **extended abstracts** (up to 4 pages of novel work or from a recently published paper) in standard RSS format, excluding unlimited pages for references. The review process will be single-blind. 10 minutes will be allocated for each regular paper, and 2 minutes for each extended abstract. There will also be a poster presentation session through gather.town for discussions. Papers will be submitted through EasyChair (https://easychair.org/cfp/DNR-ROB-2021).

Important Dates:

Paper Submission Deadline: June 20th, 2021
Acceptance Notification: June 30th, 2021
Workshop date: July 12th - 16th, 2021 (TBD)

Organizing Committee:

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	Roderic Grupen (UMass Amherst) **Yuqian Jiang** (UT Austin) **Matteo Leonetti** (U of Leeds) **Tiffany Liu** (UMass Amherst) **Erhan Oztop** (Ozyegin U)	**Justus Piater** (U of Innsbruck) **Benjamin Rosman** (U of Witwatersrand) **Tadahiro Taniguchi** (Ritsumeikan U) **Emre Ugur** (Bogazici U)