

## IJCAI 2021 Reinforcement Learning for Intelligent Transportation Systems (RL4ITS) Workshop Call For Papers (Submission deadline: May 12, 2021)

The Reinforcement Learning for Intelligent Transportation Systems Workshop is going to take place at IJCAI 2021 (<https://ijcai-21.org/>) during Aug 21-23, 2021.

Workshop URL: <https://outreach.didichuxing.com/IJCAI2021/workshop/RL4ITS/>

RL for ITS is an emerging interdisciplinary area that is undergoing rapid development and still requires further understanding on a number of issues, e.g., dynamic environments, run-time performance, and safe deployment.

The main goal of this workshop is to bring together researchers and practitioners from both the RL and transportation communities to answer the following questions:

- What are the recent advances in the state-of-the-art of RL for ITS?
- What are the new application areas in transportation that can be benefited by RL?
- What are the successful stories in real-world applications of RL to ITS?
- What are the challenges and critical issues that may have a significant impact on a successful application?

Answering these questions is critical to unleash the potential of the core intelligence in ITS beyond classical machine learning. We hope the participants will leave the workshop with a better idea about the current status of RL for ITS, about what is working well and what is not, thus providing guidance on directions of future research in this exciting area.

### Topics

We invite paper submission with a focus that aligns with the goals of this workshop. Our topics of interest span over planning, control, and decision problems in mobility-on-demand, smart and automated transportation systems and beyond, including but not limited to

- ridesharing marketplace: order matching, driver/vehicle repositioning, carpooling, pricing,
- traffic control, smart infrastructure,
- simulation for traffic, taxi, or ridesharing,
- mixed autonomy traffic management and autonomous driving,
- truck fleet management,
- vehicular robotics: planning, navigation and routing,
- managing uncertainty in transportation systems,
- RL with safety constraints for transportation systems.

### Submission

We look for innovative applications of RL and highly related methods, as well as the employment of RL techniques in conjunction with traditional approaches for ITS.

**Submission portal:** <https://cmt3.research.microsoft.com/RL4ITS2021/Submission/Index>

**Paper format:** Papers submitted to RL4ITS Workshop must be formatted according to the IJCAI-21 guidelines (link above). Submissions must be self-contained. Authors are required to submit their electronic papers in PDF format.

**Paper length:** Papers must be no longer than 7 pages in total: 6 pages for the body of the paper (including all figures/tables), plus up to 1 additional page with references that do not fit within the six body pages. Authors may submit up to 50MB of supplementary material, such as appendices, proofs, derivations, data, or source code; all supplementary material must be in PDF or ZIP format.

The reviewing process is **double-blind**. At least one author of each accepted paper is required to attend the workshop to present the work. Authors will be required to agree to this requirement at the time of submission.

The workshop is non-archival, and there will not be formal proceedings, although papers will be available on the workshop website. Papers that are under review at another conference or journal are acceptable for submission at this workshop, but we will not accept papers that have already been accepted or published at a venue with formal proceedings (including IJCAI 2021). The submitted papers will be peer-reviewed by at least two PC members. A Best Paper Award will be presented to the best submitted paper as voted by the reviewers. All papers are to be presented at the poster sessions. A select group of papers will be given the opportunity to present at the spotlight sessions during the workshop. We also plan to invite the spotlight papers to expand and submit to a reputable journal in computer science or transportation.

## Important Dates

Submission due: **May 12, 2021** (23:59 Pacific Time) Please note that this date has been extended from the original date and might be different from that on the website, which will be updated shortly.

Acceptance notification: **May 25, 2021** (23:59 Pacific Time)

Camera-ready due: June 22, 2021 (23:59 Pacific Time)

## Contact

For questions on submission and the workshop, please send email to [rl4its.ijcai@gmail.com](mailto:rl4its.ijcai@gmail.com).