

Invitation for Papers

## IEEE Transactions on Field Robotics

### Special Issue on ICRA 2024 Workshop on Field Robotics

Congratulation!

Your submission to the ICRA 2024 Workshop on Field Robotics was highly ranked during our internal review. Thus, it was selected for the first special issue of the IEEE Transactions on Field Robotics.

The deadline for submitting the full paper is **October 31st, 2024**.

As a recall, an extension of your workshop paper implies a significant addition to the content previously presented, while being able to include what was presented at the workshop. We suggest changing the title of your paper to avoid collision with the version of the workshop. The same peer review process as regular submission applies to invited papers and the expectation for the quality of the paper remains high. What is gained from the special issue is that the team of editors already knows your topics and is ready to start the review process.

#### Scope of T-FR

T-FR is a new scholarly journal dealing with the fundamentals of robotics in unstructured and dynamic environments. The journal focuses on methods and systems designed to operate outside the built environment, where the ambient conditions can't be controlled and the scale is much larger than found indoors. Articles describing research with applications in construction, forestry, agriculture, mining, subsea, intelligent highways, search and rescue, military, and space are encouraged. Papers in sensing, sensors, mechanical design, computing architectures, communication, planning, learning, and control, applied to field applications, are encouraged.

We encourage the publication of work that has both theoretical and practical significance. Authors are encouraged to implement their work and demonstrate its utility on significant problems with emphasis on the underlying principles. That is, the journal encourages reporting on what was learned in doing the work, rather than merely on what was done. Also encouraged are comparative or meta-studies and verification of previously published results, as well as reports of extended field experiments that seek to validate autonomous systems in representative environments. Systems papers are welcome, but they must include analysis and insight into why approaches work and the challenges still to be addressed. Studies of systems that have been fielded over extended durations are encouraged.

#### Goals of T-FR

Field Robotics is dedicated to the rapid dissemination of important research results in Field Robotics. Articles published in Field Robotics must meet the highest quality standards, as measured by the originality and significance of the contribution to our understanding of how to devise, create, analyze, and operate robots in their intended application domain. The journal will publish only articles of high quality, rather than seeking a particular number of papers or a ratio of accepted papers to those submitted. Field Robotics will not publish articles in which the experimental validation is restricted to simulation or controlled laboratory experiments.

#### Submission for the special issue

Submissions are to be uploaded to <https://mc.manuscriptcentral.com/fieldrobotics>

## **Planned Publication Schedule**

October 31, 2024: Manuscript submission cutoff

### **Guest Editors**

**Dr. François Pomerleau**

Senior Member IEEE

Canada Research Chair in Field  
Robotics

Université Laval

Quebec, QC, Canada

francois.pomerleau@norlab.ulaval.ca

**Prof. Philippe Giguère**

Member IEEE

Université Laval

Quebec, QC, Canada

philippe.giguere@ift.ulaval.ca

**Prof. Tim Barfoot**

Fellow IEEE

Director of the University of  
Toronto Robotics Institute

University of Toronto

Toronto, ON, Canada

tim.barfoot@utoronto.ca