

Workshop

Advancement in Trajectory Optimization and Model Predictive Control for Legged Systems

Enrico Mingo Hoffman

Humanoids 2022, Ginowan, Okinawa, Japan

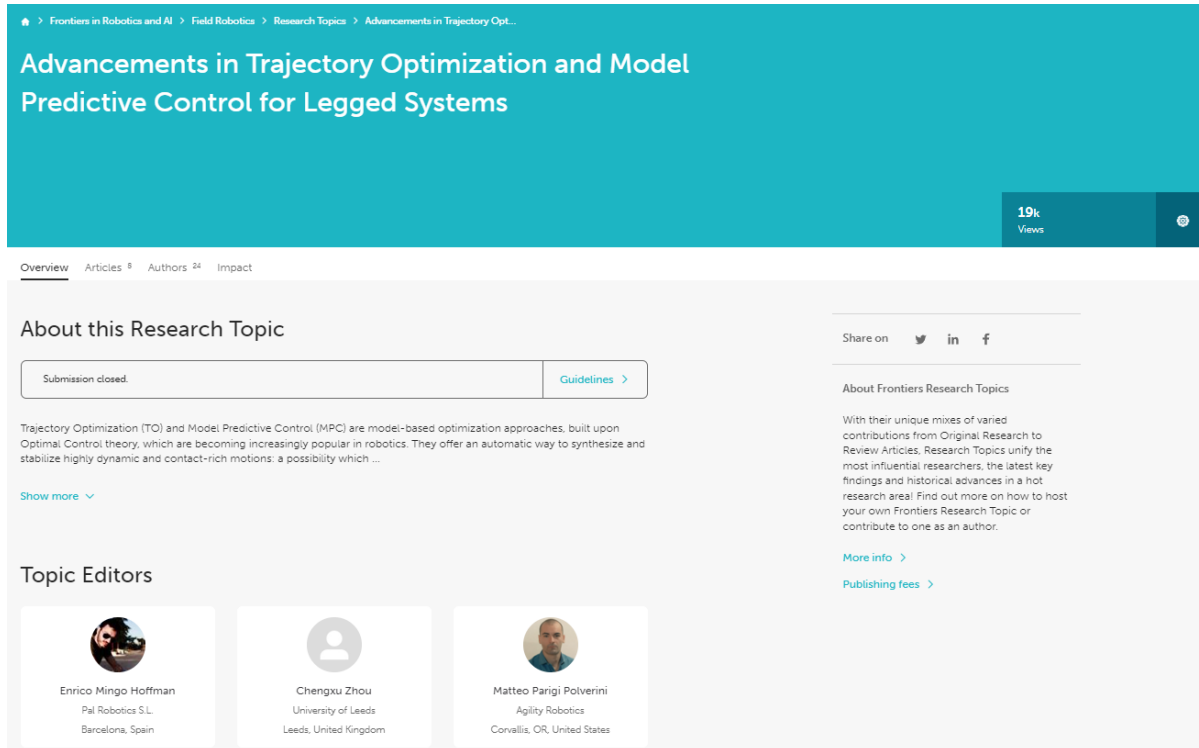
Sponsored by IEEE TC on Whole-Body Control and Model-Based Optimization for Robotics



Humanoids 2022

Scope

- Inform the robotics research community of recent findings and future directions in *TO* and *MPC* applied to legged systems.
- It follows the [Special Issue in *Frontiers in Robotics and AI*](#)



The screenshot shows the Frontiers Research Topic page for "Advancements in Trajectory Optimization and Model Predictive Control for Legged Systems". The page has a teal header with the title and a "19k Views" badge. Below the header, there are tabs for "Overview", "Articles 8", "Authors 24", and "Impact". The "About this Research Topic" section includes a "Submission closed" status and a "Guidelines" link. A paragraph describes the topic: "Trajectory Optimization (TO) and Model Predictive Control (MPC) are model-based optimization approaches, built upon Optimal Control theory, which are becoming increasingly popular in robotics. They offer an automatic way to synthesize and stabilize highly dynamic and contact-rich motions: a possibility which ...". A "Show more" link is available. The "Topic Editors" section features three editors: Enrico Mingo Hoffman (Pal Robotics S.L., Barcelona, Spain), Chengxu Zhou (University of Leeds, Leeds, United Kingdom), and Matteo Parigi Polverini (Agility Robotics, Corvallis, OR, United States). On the right, there are social media share links and a section titled "About Frontiers Research Topics" with a description of the platform and links for "More info" and "Publishing fees".

- 8 Articles
- 24 Authors
- >19k article views
- >1k article downloads

Workshop Schedule

08:30 – 10:35	5 presentations
10:35 – 11:00	Coffee break + posters
11:00 – 12:15	3 presentations
12:15 – 12:30	4 posters short presentations
12:20 – 13:20	Lunch
13:30 – 14:45	3 presentations
14:45	

Workshop WebSite



Workshop Organizers



Enrico Mingo Hoffman
PAL Robotics
Barcelona, Spain



Francesco Ruscelli
IIT-HHCM
Gena, Italy



Katja Mombaur
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Website design



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Thank you



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