IFAC
INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

4th IFAC Workshop
on Linear Parameter Varying Systems
Milan, Italy, 19-20 July 2021

www.lpvs2021.deib.polimi.it

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Sponsoring Technical Committees

- TC 2.2 Linear Control Systems
- TC 1.1 Modelling, Identification and Signal Processing
- TC 2.5 Robust Control

Important Dates

- **January 19, 2021:** Draft paper submission deadline
- **March 1, 2021:** Acceptance notification
- **May 1, 2021:** Final Manuscript submission deadline

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The Organising Committee has the pleasure to invite you to participate in the 4th IFAC Workshop on Linear Parameter-Varying Systems (LPVS'21) to be held in Milan, Italy, July 19-20, 2021.

LPVS'21 is a workshop aiming at presenting new results in the field of LPV systems and their applications in real life problems, by bringing together experts from different countries to discuss new trends, exchange new ideas, establish fruitful contacts, and promote interactions among the various fields of interest. The presentation of papers dealing with the application of the LPV models as well as LPV control strategies to practical setups and industry-issued papers are also strongly encouraged. Paper submissions are possible via PaperCept and proceedings of the workshop are published online in IFAC-PapersOnline series, hosted on ScienceDirect.

LPVS'21 will be the first "hybrid" LPVS workshop, allowing attendees from all over the world to participate either in-person or online. The event will be held at the Politecnico di Milano campus in Milan, Italy. Milan is the leading financial center and the most prosperous manufacturing and commercial city of Italy, with its own technical university. It is attractive and charming with a vibe that balances old-world romance and history with urban grit and cosmopolitanism. Plus, it is surrounded by some of central Europe's most beautiful countryside. Milan can be easily reached by plane via Malpensa (easyJet), Linate or Orio al Serio (RyanAir) airports or via direct high-speed train connections.

BACKGROUND AND SCOPE

The workshop topics will cover the whole area for LPV systems: modelling, analysis, observation and control. In each one of these contexts, some of the important keywords include:

1. ***Modelling and Identification of LPV systems.*** In particular, how to obtain LPV models for nonlinear systems, switching systems, time-delay systems, sampled-data systems, systems with saturation, uncertain systems, polynomial systems, etc.
2. ***Analysis of LPV systems:*** stability and stabilization, robustness issues, geometric approaches, structural analysis, etc.
3. ***Observation and diagnosis of LPV Systems:*** observer design, fault detection and isolation, etc.
4. ***Control of LPV systems:*** robust control, optimal control, predictive control, constrained control, fault tolerant control, data-driven and learning-based control, sampled-data control, event and self-triggered control, etc.
5. ***Applications of LPV modeling and control:*** automotive, aerospace, robotics, chemical processes, biological systems, energy and nuclear, network-controlled-systems.