

Kai Wang

CONTACT INFO

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EDUCATION

ShanghaiTech University 09/2017 - 06/2020 (expected)
M.E., Computer Science, School of Information Science and Technology
Xidian University 08/2013 - 07/2017
B.E., Space Information and Digital Technology, School of Telecommunications Engineering

RESEARCH INTERESTS

Robust Model Predictive Control
Distributed Optimization
Set Based Computing

PUBLICATIONS

K. Wang, Y. Jiang, J. Oravec, M.E. Villanueva, B. Houska. Parallel Explicit Tube Model Predictive Control. In *Proceedings of the 58th Conference on Decision and Control*, Nice, France, December, 2019. (PDF available at <http://arxiv.org/abs/1910.03271>)
J. Su, Y. Zha, **K. Wang**, M.E. Villanueva, R. Paulen, B. Houska. Interval Superposition Arithmetic for Guaranteed Parameter Estimation. In *Proceedings of the 12th IFAC Symposium on Dynamics and Control of Process Systems*, Florianopolis, Brazil; *IFAC-PapersOnLine*, Volume 52(1), pp.574-579, April, 2019.

ONGOING PROJECTS

Parallel Affine Disturbance Feedback Model Predictive Control: I currently work on a paper that proposes a parallel robust MPC algorithm that is based on affine disturbance feedback parameterization.
ALADIN Open Source Software: I currently work towards an open source software for solving distributed optimization problems using ALADIN. Here, my focus is on applications in the context of distributed robust MPC.

TEACHING

Teaching Assistant, Numerical Analysis, ShanghaiTech University, Shanghai, Fall 2019
Teaching Assistant, Numerical Analysis, ShanghaiTech University, Shanghai, Fall 2018
Teaching Assistant, Introduction to Control, ShanghaiTech University, Shanghai, Fall 2017

PRESENTATIONS

K. Wang. Parallel Explicit Tube Model Predictive Control. In 58th IEEE Conference on Decision and Control (CDC), Nice, France, December 11-13, 2019.

EXPERIENCE

Visiting Scholar, Institute for Information Engineering, Automation, and Mathematics, Slovak University of Technology in Bratislava, Slovakia, October, 2018

Co-organizer, International Workshop on Advanced Methods for Control and Estimation of Dynamic Systems (AMCEDS 2018), ShanghaiTech University, Shanghai, China, July 23, 2018

AWARDS

Outstanding Student Award, Xidian University, 2016

Outstanding Student Award, Xidian University, 2015

SUPERVISOR

Prof. Boris Houska

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