List of Publications

Prof. Dr.-Ing. Frank Allgöwer

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The publications are listed in a reverse-chronological order. Only peer reviewed articles are listed.

Articles in Journals

[1] J. Berberich, J. Köhler, M. A. Müller, and F. Allgöwer. Data-driven model predictive control with stability and robustness guarantees. *IEEE Trans. on Automatic Control*, 2021. doi:10.1109/tac.2020.3000182.

[2] J. Köhler, P. Kötting, R. Soloperto, F. Allgöwer, and M. A. Müller. A robust adaptive model predictive control framework for nonlinear uncertain systems. *Int. J. of Robust and Nonlinear Control*, 2021. doi:10.1002/rnc.5147.

[3] P. Pauli, A. Koch, J. Berberich, P. Kohler, and F. Allgöwer. Training robust neural networks using Lipschitz bounds. *IEEE Control Systems Letters*, 2021. (accepted, in press). doi:10.1109/LCSYS.2021.3050444.

[4] R. Soloperto, J. Köhler, and F. Allgöwer. Augmenting MPC schemes with active learning: Intuitive tuning and guaranteed performance. *IEEE Control Systems Letters*, 4(3):713–718, 2020. doi:10.1109/lcsys.2020.2983384.

[5] J. Berberich, J. Köhler, F. Allgöwer, and M. A. Müller. Dissipativity properties in constrained optimal control: A computational approach. *Automatica*, 114:108840, 2020. doi:https://doi.org/10.1016/j.automatica.2020.108840.

[6] J. Köhler, L. Schwenkel, A. Koch, J. Berberich, P. Pauli, and F. Allgöwer. Robust and optimal predictive control of the COVID-19 outbreak. *Annual Reviews in Control*, 2020. (accepted, in press). doi:10.1016/j.arcontrol.2020.11.002.

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[8] T. Martin and F. Allgöwer. Dissipativity verification with guarantees for polynomial systems from noisy input-state data. *IEEE Control Systems Letters*, 5(4):1399–1404, 2021.

[9] M. Sharf, A. Romer, D. Zelazo, and F. Allgöwer. Model-free practical cooperative control for diffusively coupled systems. *IEEE Trans. Automat. Control*, 2021. (accepted, in press).

[10] S. Linsenmayer, M. Hertneck, and F. Allgöwer. Linear weakly hard real-time control systems: Time- and event-triggered stabilization. *IEEE Trans. Automat. Control*, 2021. (accepted, published online). doi:10.1109/TAC.2020.3000981.

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[12] P. N. Köhler, M. A. Müller, J. Pannek, and F. Allgöwer. Distributed economic model predictive control for cooperative supply chain management using customer forecast information. *IFAC J. Systems and Control*, 15:100125, 2021. doi:10.1016/j.ifacsc.2020.100125.

[13] J. Köhler, M. A. Müller, and F. Allgöwer. Periodic optimal control of nonlinear constrained systems using economic model predictive control. *J. Process Control*, 92:185–201, 8 2020. doi:10.1016/j.jprocont.2020.06.004.

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