

Stanford

Andrei Kanavalau

Ph.D. Student in Electrical Engineering, admitted Autumn 2020

Bio

BIO

Andrei is a PhD candidate in the Electrical Engineering department at Stanford. His research focuses on augmenting control algorithms with machine learning while preserving safety and stability guarantees.

EDUCATION AND CERTIFICATIONS

- BA+MEng, University of Cambridge (Pembroke College) , Chemical Engineering (2019)

LINKS

- Personal Site: <https://kanavalau.com>

Research & Scholarship

LAB AFFILIATIONS

- Sanjay Lall, Lall Group (9/1/2020)

Publications

PUBLICATIONS

- **Safe Explicit MPC by Training Neural Networks Through Constrained Optimization**
Kanavalau, A., Lall, S., IEEE
IEEE.2024: 183-188
- **Analysis and Local Convergence Proof of a Constrained Optimization Algorithm for Training Neural Networks**
Kanavalau, A., Lall, S., IEEE
IEEE.2024: 839-844
- **Thermal runaway avoidance using Hamilton-Jacobi reachability and model predictive control** *COMPUTERS & CHEMICAL ENGINEERING*
Kanavalau, A., Lall, S.
2022; 157
- **Robust thermal stability for batch process intensification with model predictive control** *COMPUTERS & CHEMICAL ENGINEERING*
Kanavalau, A., Masters, R., Kahm, W., Vassiliadis, V. S.
2019; 130