

Fethi Bencherki, Licentiate

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🌐 Google Scholar Profile



Education

- 2021 – Present 📖 **Ph.D. Candidate, Lund University** in Automatic Control.
Research focus: *Learning and control over large scale networks.*
- 2021 – 2024 📖 **Licentiate, Lund University** in Automatic Control.
Thesis title: *Adaptive Control of Positive Systems* [link]
- 2017 – 2020 📖 **M.Sc. Electrical and Electronics Engineering, Eskisehir Technical University** in Control Systems.
Thesis title: *State-space identification of switched linear systems via sparse optimization* [link].
- 2016 – 2017 📖 **M.Sc. Institute of Electrical and Electronic Engineering, Boumerdes, Algeria** in Control engineering.
- 2012 – 2015 📖 **B.Sc. Institute of Electrical and Electronic Engineering, Boumerdes, Algeria** in Electrical and Electronics Engineering.

Research Publications

Journal Articles

- 1 **F. Bencherki** and A. Rantzer, “Data-driven adaptive dispatching policies for processing networks,” *IEEE Control Systems Letters*, vol. 8, pp. 2841–2846, 2024.
- 2 **F. Bencherki**, S. Türkay, and H. Akçay, “Mimo switched-linear system identification from input-output data,” *Under review in Signal Processing*, 2024.
- 3 **F. Bencherki**, S. Türkay, and H. Akçay, “Observer-based switched-linear system identification,” *Under review in Nonlinear Analysis: Hybrid Systems*. Preprint available at: <https://arxiv.org/pdf/2107.14571>, 2024.
- 4 **F. Bencherki**, S. Türkay, and H. Akçay, “Basis transform in linear switched system models from input-output data,” *International Journal of Adaptive Control and Signal Processing*, vol. 37, no. 12, pp. 3151–3168, 2023.
- 5 **F. Bencherki**, S. Türkay, and H. Akçay, “Realization of multi-input/multi-output switched linear systems from markov parameters,” *Nonlinear Analysis: Hybrid Systems*, vol. 48, p. 101 311, 2023.



Articles in Conference Proceedings

- 1 **F. Bencherki** and A. Rantzer, “Data-driven adaptive dispatching policies for processing networks,” in *2025 American Control Conference (ACC)*, 2025.
- 2 **F. Bencherki** and A. Rantzer, “Robust adaptive data-driven control of positive systems with application to learning in ssps,” in *7th Annual Learning for Dynamics & Control Conference, under review*, 2025.
- 3 **F. Bencherki**, S. Türkay, and H. Akçay, “Mimo-sls identification from input-output data,” in *2024 IEEE 18th International Conference on Control and Automation (ICCA)*, IEEE, 2024, pp. 62–65.

- 4 **F. Bencherki**, S. Türkay, and H. Akçay, “Realization of mimo-slss from markov parameters via forward/backward corrections,” in *2024 European Control Conference (ECC)*, IEEE, 2024, pp. 3138–3143.
- 5 **F. Bencherki** and A. Rantzer, “Robust simultaneous stabilization via minimax adaptive control,” in *2023 62nd IEEE Conference on Decision and Control (CDC)*, IEEE, 2023, pp. 2503–2508.
- 6 D. Ohlin, **F. Bencherki**, and E. Tegling, “Achieving consensus in networks of increasingly stubborn voters,” in *2022 IEEE 61st Conference on Decision and Control (CDC)*, IEEE, 2022, pp. 3531–3537.

Teaching and Extracurricular

Teaching

- 2021–2024  **Teaching Assistant and Lab Responsible** in *Non-Linear Control and Servo Systems* course.
- 2021–2024  **Teaching Assistant and Lab Responsible** in *Automatic control, basic course*

Extracurricular


- 2020–2023  **Friday Seminar Announcer at Dept. of Automatic Control**, responsible for booking and coordination of internal Friday seminars.

Talks


- 2025  **Licentiate Thesis Presentation**, 14 February, 2025. [slides]
- 2024  **26th International Symposium on Mathematical Theory of Networks and Systems**, Cambridge, UK, 19–23 August, 2024. [slides]
-  **European Control Conference 2024 (ECC24)**, Stockholm, Sweden, 25–28 June, 2024. [slides]
-  **18th IEEE International Conference on Control & Automation (ICCA 2024)**, Reykjavik, Iceland, June 18–21, 2018. [slides]
- 2023  **62nd IEEE Conference on Decision and Control (CDC24)**, Singapore, 13–15 Dec 2023. [slides]

Academic service

Organized conferences

- 2024  **European Control Conference 2024 (ECC24)**, KTH Royal Institute of Technology, Stockholm, Sweden, 25–28 June, 2024.
Role: Volunteer to help with registration, parallel sessions, etc

Peer-reviewing for conferences

- 2025  **American Control Conference**, Denver, Colorado, US, 8–10 July, 2025.
- 2024  **IEEE Conference on Decision and Control**, Milan, Italy, December 16–19, 2024.
-  **European Control Conference**, Stockholm, Sweden, 25–28 June, 2024.
-  **7th Annual Learning for Dynamics & Control Conference**, Michigan, Ann Arbor, 4–6 June, 2025.

Academic service (continued)

Peer-reviewing for Journals

- **Nonlinear Analysis: Hybrid Systems**
- **IEEE Control Systems Letters (L-CSS)**

Awards and Achievements

- 2016-2020 ■ **Recipient of Turkish government graduate program scholarship**, A master program Scholarship to cover tuition fees, accommodation and a monthly stipend
- 2024 ■ **Recipient of Landshövding Per Westlings minnesfond grant**
- **Recipient of Sigfrid och Walborg Nordkvist grant**

References

Available on Request