

Institute for Systems Theory and Automatic Control  
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## RESEARCH INTERESTS

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Convex Optimization; Dynamical Systems; Monotone Operators

## APPOINTMENTS

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since 11/2021	<b>Systems and Control Engineer</b> MTU Aero Engines AG, Munich, Germany
10/2014–07/2015	<b>Graduate Research Assistant</b> Department of Mechanical and Aerospace Engineering University of California, San Diego, CA, USA Advisor: Prof. Jorge Cortés
06/2012–09/2012	<b>Undergraduate Research Assistant</b> Department of Electrical and Computer Engineering National University of Singapore, Singapore

## EDUCATION

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09/2015–10/2021	<b>Ph.D., Mechanical Engineering</b> (pending examination) Institute for Systems Theory and Automatic Control University of Stuttgart, Germany Advisor: Prof. Dr.-Ing. Frank Allgöwer
10/2012–08/2015	<b>M.Sc., Engineering Cybernetics</b> University of Stuttgart, Germany
10/2008–09/2012	<b>B.Eng., Mechanical Engineering</b> Deggendorf Institute of Technology, Germany

## HONORS AND AWARDS

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2015	<b>Jacobs Fellowship</b> , University of California, San Diego (declined)
2014–2015	<b>Dr. Jürgen und Irmgard Ulderup Fellowship</b>
2011–2015	<b>Fellow of German Academic Scholarship Foundation</b> (Studienstiftung des deutschen Volkes)
2010–2012	<b>Fellow of German Academic Exchange Service</b> (Deutscher Akademischer Austauschdienst)

## TEACHING ASSISTANCE

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2016–2020	<b>Nonlinear Control</b> (Graduate Course), University of Stuttgart
Summer 2019	<b>Convex Optimization</b> (Graduate Course), University of Stuttgart
2020–2021	<b>Systems and Control</b> (Undergraduate Course), University of Stuttgart
Winter 2017	<b>Introduction to Automatic Control</b> (Undergraduate Course), University of Stuttgart

CONFERENCES AND TALKS

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- 07/2020    **Colloquium**, *A second-order dynamical approach to linearly constrained convex minimization*, 25th Stuttgarter Systemtheorie Kolloquium (SSK), Stuttgart, Germany
- 12/2016    **Conference**, *Exponentially fast distributed coordination for nonsmooth convex optimization*, 55th IEEE Conf. Decis. Control (CDC), Las Vegas, NV, USA
- 12/2015    **Conference**, *Distributed coordination for separable convex optimization with coupling constraints*, 54th IEEE Conf. Decis. Control (CDC), Osaka, Japan

PROFESSIONAL SERVICE

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*Membership in Professional Societies*

- since 2015    **Society of Industrial and Applied Mathematics (SIAM)**
- since 2014    **Institute of Electrical and Electronics Engineers (IEEE)**
- since 2014    **Control Systems Society (CSS)**

*Reviewer*

Automatica; IEEE Control Systems Letters; IEEE Transactions on Automatic Control; Optimization; SIAM Journal on Control and Optimization

PUBLICATIONS

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- [P-01]    **S. K. Niederländer**, *On the Arrow–Hurwicz differential system for linearly constrained convex minimization*, Optimization (2022), submitted.
- [J-02]    **S. K. Niederländer**, *Second-order dynamics with Hessian-driven damping for linearly constrained convex minimization*, SIAM J. Control Optim., 59 (2021), pp. 3708-3736.
- [J-01]    J. Cortés and **S. K. Niederländer**, *Distributed coordination for nonsmooth convex optimization via saddle-point dynamics*, J. Nonlinear Sci., 29 (2019), pp. 1247-1272.

REFERENCES

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**Prof. Jorge Cortés**

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