Steffen W. R. Werner

Assistant Professor at Virginia Polytechnic Institute and State University (Virginia Tech), USA

Personal Info

✱ Birthday
September 6, 1992
in Stendal, Germany

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Website
https://ninsteve.github.io

Programming Skills

MATLAB — Expert

LaTeX — Expert

Python — Advanced

C — intermediate

Languages

German — Mother tongue

English — Advanced

Steffen W. R. Werner is an encouraged young researcher active in the fields of scientific machine learning and model order reduction, involving numerical linear algebra and scientific computing. During his scientific career, he published 20 journal articles, 3 book chapters, 10 conference papers, as well as 3 open-source software packages.

Professional Experience

since 08/2023 — **Assistant professor**,
Virginia Polytechnic Institute and State University, USA.

09/2021–08/2023 — **Postdoctoral associate**,
Courant Institute, New York University, USA.

10/2016–08/2021 — **Doctoral researcher**,
Max Planck Institute Magdeburg, Germany.

05/2016–09/2016, 10/2014–01/2016 — **Student employee**,
Max Planck Institute Magdeburg, Germany.
- Development and maintenance of MATLAB toolboxes.

01/2016–04/2016 — **Industrial intern**,
proALPHA Business Solutions GmbH, Germany.
- Application programming.
- Analysis of modern version control systems.

10/2013–09/2014 — **Student employee**,
Otto von Guericke University Magdeburg, Germany.
- Tutor for mathematical/engineering courses.

Education

10/2016–08/2021 — **Doctoral studies in applied mathematics**,
Otto von Guericke University Magdeburg, Germany.
- summa cum laude (excellent).

10/2014–09/2016 — **Master of Science in applied mathematics**,
Otto von Guericke University Magdeburg, Germany.
- very good with distinction.

10/2011–09/2014 — **Bachelor of Science in applied mathematics**,
Otto von Guericke University Magdeburg, Germany.
- very good with distinction.

Research Interests

scientific computing, scientific machine learning, model order reduction, data-driven modeling, numerical linear algebra, optimization and control, mathematical software

Awards

03/2020 — **Best Paper Award Automatisierungstechnik**
at - Automatisierungstechnik, De Gruyter, Austria.

06/2019 — **SIAM Student Chapter Certificate of Recognition**
Society for Industrial and Applied Mathematics (SIAM), Philadelphia, USA.

Selected Publications

[1] **S. W. R. Werner** and B. Peherstorfer. Context-aware controller inference for stabilizing dynamical systems from scarce data. *Proc. R. Soc. A: Math. Phys. Eng. Sci.*, 429(2270):20220506, 2023. doi 10.1098/rspa.2022.0506

[2] J. Saak, D. Siebelts, and **S. W. R. Werner**. A comparison of second-order model order reduction methods for an artificial fishtail. *at - Automatisierungstechnik*, 67(8):648–667, 2019. doi 10.1515/auto-2019-0027

[3] P. Benner, S. Gugercin, and **S. W. R. Werner**. Structure-preserving interpolation of bilinear control systems. *Adv. Comput. Math.*, 47(3):43, 2021. doi 10.1007/s10444-021-09863-w OPEN ACCESS

[4] P. Benner, J. Saak, and **S. W. R. Werner**. MORLAB – Model Order Reduction LABoratory (version 6.0), 2023. See also: https://www.mpi-magdeburg.mpg.de/projects/morlab. doi 10.5281/zenodo.7072831 open source License BSD 2-Clause