

Curriculum Vitae

Professional Career

HZDR Research Fellow Helmholtz-Zentrum Dresden – Rossendorf	since March 2016
Group Leader Helmholtz-Zentrum Dresden – Rossendorf	since February 2016
Junior Group Leader Helmholtz-Zentrum Dresden – Rossendorf	August 2010 to January 2016
Postdoctoral Researcher Forschungszentrum Dresden – Rossendorf	April 2008 to July 2010

Education

Dr. rer. nat. in Physics (PhD equivalent) Ludwig-Maximilians University Munich	March 2008 → Thesis
Diploma in Physics Ludwig-Maximilians University Munich	February 2002 → Thesis

Positions in Organizations

Designated Topic Speaker Data Management and Analysis Helmholtz Research Field MATTER	since 2016
Sub-Topic Speaker Data Transmission and Processing Helmholtz Research Field MATTER	since 2013
Co-Founder and Board Member GPU Center of Excellence Dresden	since 2012
Working Group Leader Laser Cooling Stored Particles Atomic Physics Research Collaboration (SPARC), GSI	since 2010

Prizes, Nominations

HZDR Innovationspreis Helmholtz-Zentrum Dresden – Rossendorf	2014
Finalist Gordon Bell Prize Association for Computing Machinery	2013

Patents

US Patent 9268151	02/23/2016
German Patent 10-2010-028-994	11/17/2011



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married, 2 daughters

Current Affiliation

Group Leader
Computational Radiation Physics

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Publications: **BibTeX, PDF**

Selected Publications (Highlight 5)

- [1] P. Hinz, T. M. Ostermayr, A. Huebl, V. Bagnoud, B. Borm, M. Bussmann, M. Gallei, J. Gebhard, D. Haffa, J. Hartmann, T. Kluge, F. H. Lindner, P. Neumayr, C. G. Schaefer, U. Schramm, P. G. Thirolf, T. F. Rosch, F. Wagner, B. Zielbauer, and J. Schreiber, "Isolated proton bunch acceleration by a petawatt laser pulse," *Nature Communications*, vol. 9, no. 1, p. 423, January 2018. [Online]. Available: <https://www.nature.com/articles/s41467-017-02663-1.pdf>
- [2] J. P. Couperus, R. Pausch, A. Köhler, O. Zarini, J. M. Krämer, M. Garten, A. Huebl, R. Gebhardt, U. Helbig, S. Bock, K. Zeil, A. Debus, M. Bussmann, U. Schramm, and A. Irman, "Demonstration of a beam loaded nanocoulomb-class laser wakefield accelerator," *Nature Communications*, vol. 8, no. 1, p. 487, September 2017. [Online]. Available: <https://www.nature.com/articles/s41467-017-00592-7.pdf>
- [3] A. Matthes, R. Widera, E. Zenker, B. Worpitz, A. Huebl, and M. Bussmann, "Tuning and optimization for a variety of many-core architectures without changing a single line of implementation code using the alpaka library," in *High Performance Computing 10524: ISC High Performance 2017 International Workshops, DRBSD, ExaComm, HCPM, HPC-IODC, IWOPH, IXPUG, P3MA, VHPC, Visualization at Scale, WOPSSS, Frankfurt, Germany, June 18-22, 2017, Revised Selected Papers*, J. M. Kunkel, R. Yokota, M. Taufer, and J. Shalf, Eds. Springer International Publishing, 2017, p. 496. [Online]. Available: https://link.springer.com/chapter/10.1007/978-3-319-67630-2_36
- [4] A. Huebl, R. Widera, F. Schmitt, A. Matthes, N. Podhorszki, J. Y. Choi, S. Klasky, and M. Bussmann, "On the scalability of data reduction techniques in current and upcoming hpc systems from an application perspective," in *High Performance Computing 10524, ISC High Performance 2017 International Workshops, DRBSD, ExaComm, HCPM, HPC-IODC, IWOPH, IXPUG, P3MA, VHPC, Visualization at Scale, WOPSSS, Frankfurt, Germany, June 18-22, 2017, Revised Selected Papers*, D. J. M. Kunkel, R. Yokota, D. M. Taufer, and J. Shalf, Eds. Springer International Publishing, 2017, p. 15. [Online]. Available: <https://www.springerprofessional.de/on-the-scalability-of-data-reduction-techniques-in-current-and-u/-15147224>
- [5] M. Bussmann, H. Bureau, T. E. Cowan, A. Debus, A. Huebl, G. Juckeland, T. Kluge, W. E. Nagel, R. Pausch, F. Schmitt, U. Schramm, J. Schuchart, and R. Widera, "Radiative signatures of the relativistic kelvin-helmholtz instability," in *Proceedings of SC13 : International Conference for High Performance Computing, Networking, Storage and Analysis*, W. Gropp and S. Matsuoka, Eds., ACM, New York, NY, USA: ACM, 2013, pp. 5–1.