

# Curriculum Vitae

## Professional Career

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

## Education

<b>Dr. rer. nat. in Physics (PhD equivalent)</b>	March 2008
Ludwig-Maximilians University Munich	<a href="#">→ Thesis</a>
<b>Diploma in Physics</b>	February 2002
Ludwig-Maximilians University Munich	<a href="#">→ Thesis</a>

## Positions in Organizations

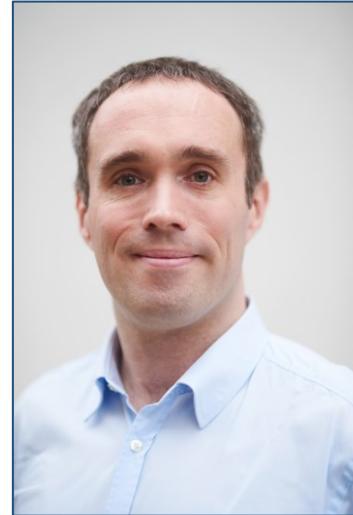
<b>Designated Topic Speaker</b>	since 2016
<b>Data Management and Analysis</b>	
Helmholtz Research Field MATTER	
<b>Sub-Topic Speaker</b>	since 2013
<b>Data Transmission and Processing</b>	
Helmholtz Research Field MATTER	
<b>Co-Founder and Board Member</b>	since 2012
GPU Center of Excellence Dresden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

## Prizes, Nominations

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

## Patents

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



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## Current Affiliation

Group Leader  
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Google Scholar: [ziXsd4AAAAJ](https://scholar.google.com/citations?user=ziXsd4AAAAJ)  
Publications: [BibTeX](https://www.bibtex.com/), [PDF](https://www.hzdr.de/crp/publications)

## Selected Publications (Highlight 5)

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- [1] P. Hilz, 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](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](https://www.springerprofessional.de/on-the-scalability-of-data-reduction-techniques-in-current-and-upcoming-hpc-systems-from-an-application-perspective/15147224)
- [5] M. Bussmann, H. Burau, 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.