Professor Dr. habil
Stephan Ullrich Fritzsche

Curriculum vitae

Born: 3rd October 1962 in Dresden.
Marital status: married, one daugther

Private address: Jahnstr. 15, 07743 Jena.

Institute: Helmholtz-Institut Jena, Fröbelstieg 3 &
Theoretisch-Physikalisches Institut, Friedrich-Schiller-Universität Jena,
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School: Elementary school, Dresden, 1969–1977;
High school 'Bertolt Brecht', Dresden, 1977–1981;
High school graduation, Dresden, June 1981.

Military service in Weißenfels, November 1981 – April 1983.

Study: Study of Physics at the Technical University of Dresden, 1983 – 1988;
Aggregation mark "sehr gut".
Diploma: *Evaluation of Atomic Data for the X–ray Fluorescence Spectroscopy.*
PhD student at the Technical University of Dresden,
June 1988 – July 1990.
PhD student at the University of Kassel, **August 1990 – January 1992**,
PhD thesis: *Influence of Relaxation and Correlation Effects on Nonradiative Atomic Transitions*, January 1992 with Professor B. Fricke;
Grade "mit Auszeichnung".

Habilitation: *Relativistic Theory of Open–Shell Atoms*, University of Kassel,
April 1997.

Work: University of **Kassel**, *post–doc* in the group of Professor B. Fricke,
January – August 1992.
Mathematical Institute, University of **Oxford** (Great Britain), *post–doc* in the group of Professor I. P. Grant, **September 1992 – October 1993**.
Department of Physics, Chalmers University of Technology, **Göteborg**, *post–doc* in the group of Professor I. Lindgren and Dr. A.–M. Mårtensson–Pendrill, **November 1993 – July 1995**.
University of Kassel, Lecturer (C1) in the group of Professor B. Fricke,
1995 – 2001.

Work (contn'd):	University of **Kassel**, Senior Lecturer (Docent, C2), **2002 – April 2007**. University of **Kassel**, Apl. Professur, **since 2006**. MPI für Kernphysik **Heidelberg**, Division Professor J. Ullrich, **2007/2008**. **Frankfurt** Institute of Advanced Studies (FIAS) and Helmholtzzentrum für Schwerionenforschung (GSI) **Darmstadt**, Atomic Physics Division, Professor T. Stöhlker, **2008-2012**. Department of Physics, **Oulu** University (Finland), Distinguished Professorship of the Finnish Academy (FiDiPro) & Physikalisches Institut, Ruprecht-Karls-Universität **Heidelberg**, **2009-2012** .
Fellowships:	Fellowship of the NATO Research Council (1992); Fellowship of European Science Foundation and Swedish Institute (1993); Fellowship of the Swedish Natural Science Research Council (1994).
Awards:	Honory Professor of the Northwest University of Lanzhou (China); October 2003. Distinguished Professorship of the Finnish Academy of Science, Oulu University, 2008–2012. Honory Professorship of the Northwest University of Lanzhou (China). 2012–2014.
Research interests:	1. Relativistic and correlation effects in atoms and molecules (MCDF, MBPT, Coupled–Cluster approximation, atomic basis sets). 2. Properties and dynamics of highly–charged, heavy ions. 3. Decoherence and entanglement in atomic and $N-$qubit systems. 4. Computer–algebraic methods and applications for many–particle problems (group theory, Racah algebra, Feynman–Goldstone expansions). 5. Calculation of atomic ionization and decay properties concerning applications in astro and plasma physics (autoionization, dielectronic recombination, inner–shell processes, photoionization).
Software for Theoretical Physics:	1. Development of computer–algebraic packages RACAH, DIRAC and FEYNMAN for describing quantum many-particle systems (CPC-Library). 2. Development and maintenance of relativistic atomic and molecular structure programs (CPC).
Detailed Applications:	1. Calculation of atomic energies and properties for the design and interpretation of (laser–)spectroscopic experiments. 2. Accurate data for plasma and astro physics.
Editor:	Editor of *Computer Physics Communications*, **since 2009**.
Referee work:	'Studienstiftung des Deutschen Volkes', Finnish Academy of Science. Marie–Curie Fellowship Program der EU. Deutsche Forschungsgemeinschaft (DFG).