

## Curriculum Vitae

Urs Ganse  
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### Academic Positions

2013	Postdoctoral Researcher, University of Helsinki
2014-2015	2 year DFG research grant “Electron Instabilities in the Heliosphere”, University of Helsinki / North-West University Potchefstroom
Jan-May 2016	Postdoctoral Researcher, University of Turku
Since Jun 2016	Finnish Meteorological Institute

### University Education

2003-2006	Physics (Diploma), University of Würzburg
2005	<i>Vordiplom</i> , Average Grade: 1.1
2006-2007	Physical Science, Heriot-Watt University Edinburgh
2007	<i>Master of Physics in Physical Science</i> with Honours of the first Class
2007-2009	<i>Diploma</i> in Physics, Universität Würzburg, diploma thesis on “Particle-in-Cell Simulations of Type II Radiobursts from coronal Mass Ejections”, Department of Astronomy (Grade: 1.1)
2009-2012	<i>PhD</i> in Physics, Universität Würzburg, thesis on “Kinetic Simulations of Solar Type II Radiobursts” (Magna cum laude)

### Prizes and Scholarships

2002-2008	Scholarship of the German Academic Merit Foundation
2009-2012	PhD Scholarship of the Elite Network of Bavaria
2011	European Solar Physics Poster Prize (ESPM 13)

### Important Publications (Excerpt)

- **Ganse, U.**; KILIAN P.; SPANIER F.; VAINIO, R.: Fundamental and harmonic plasma emission in different plasma environments. *Astronomy & Astrophysics*, Volume 564, pp. A15 (2014)
- PALMROTH M.; ARCHER, M.; VAINIO, R.; PFAU-KEMPF, Y.; HOILIJOKI, S.; HANNUKSELA, O.; **Ganse, U.**; SANDROOS, A.; VON ALFTHAN, S.; EASTWOOD, J.: ULF foreshock under radial IMF: THEMIS observations and global kinetic simulation Vlasiator results compared, *Journal of Geophysical Research* (October 2015)
- **Ganse, U.**; KILIAN, P., VAINIO, R.; SPANIER, F.: Emission of Type II Radio Bursts - Single Beam versus Two-Beam Scenario. *Solar Physics*, Volume 280, Issue 2, pp.551-560 (2012)
- **Ganse, U.**; KILIAN, P.; SPANIER, F.; VAINIO, R.: Nonlinear Wave Interactions as Emission Process of Type II Radio Bursts. In: *The Astrophysical Journal* 751-2, 145(6pp) (2012)

- KEINERT, B.; SCHÄFER, H.; KORNDÖRFER, J.; **Ganse, U.**; STAMMINGER, M.: Improved Ray Casting of Procedural Distance Bounds. *Journal of Graphics Tools* 17(4):127-138 (2015)

### Conferences & Workshops (Excerpt)

2009	Solar Wind 12, Saint Malo (Poster)
2010	COSPAR, Bremen (Talk)
2011	European Solar Physics Meeting 13, Rhodos (Poster)
2012	EGU 2012, Vienna (Talk)
2013	Astronum 2013, Biarritz (Talk)
2013	European Space Weather Week (Poster)
2014	European Space Weather Week (Poster)
2015	Queenstown Reconnection Workshop, Queenstown (Talk)
2016	EGU 2016, Vienna (Talk)
2016	Astronum 2016, Monterey (Invited Talk)

### Teaching Experience

- Physics junior lab supervision, winter term 2005/06
- C programming - course, summer term 2006
- Tutorial for Lecture “Introduction to Plasma Physics”, summer term 2008, winter term 2009/10 and 2010/11
- Tutorial for Lecture “Numerical Methods in Astrophysics”, summer term 2009, 2010 and 2011
- Tutorial for Lecture “Mathematics 3: Differential Equations”, winter term 2011/12
- Tutorial for Lecture “Theoretical Electrodynamics”, winter term 2013
- Supervision of 2 Bachelor’s and 2 Master’s projects.

### Miscellaneous qualifications

- Languages:
  - German (Mother tongue)
  - English (Excellent verbal and written skills)
  - Finnish (Intermediate verbal and written skills)
  - French (Basic verbal and written skills)
- Programming languages: C/C++, Python, Perl
- Numerical concepts: Parallelization with OpenMP and MPI, GPU programming with Cuda and OpenCL
- 3D graphics, animation, audio synthesis, compression methods and compact binaries.
- HPC experience on all major supercomputing platforms.

Helsinki, 28.4.2016