

Curriculum Vitae

Christina Ariane Knappek

Date of birth 26 August 1976
Place of birth München, Germany
Nationality German

Educational Qualifications

1986–1995 Secondary education
Theresien-Gymnasium München (degree: Abitur)
1995–2004 Studies of general physics
Technische Universität München (degree: Diplom)
Diploma thesis: Experimental Investigation of Dynamical
Properties and Ergodicity in Plasma Crystals
2004–2010 PhD student
Thesis topic: Phase transitions in two-dimensional complex
plasmas
Thesis supervisor: Prof. Dr. Gregor Morfill
Place: Max-Planck-Institut für extraterrestrische Physik, Garching
and Ludwig-Maximilians-Universität, München, Germany

Working Experience

Since 2008 Research position in PlasmaLab (*Investigation of Complex Plasmas under Microgravity on the ISS—Development of new Plasma Chambers*), Max-Planck-Institut für Extraterrestrische Physik, Garching, Germany

Publications in Refereed Journals

1. V. Nosenko, S. K. Zhdanov, A. V. Ivlev, C. A. Knapek and G. E. Morfill, 2D Melting of Plasma Crystals: Equilibrium and Nonequilibrium Regimes, *Phys. Rev. Lett.* **103** (1), 015001 (2009).
2. K. Rypdal, B. Kozelov, S. Ratynskaia, B. Klumov, C. Knapek and M. Rypdal, Scale-free vortex cascade emerging from random forcing in a strongly coupled system, *NJP* **10**, 093018 (2008).
3. G. E. Morfill, A. V. Ivlev, M. Rubin-Zuzic, C. A. Knapek, R. Pompl, T. Antonova and H. M. Thomas, Complex plasmas—new discoveries in strong coupling physics, *Appl. Phys. B* **89** (4), 527–534 (2007).
4. S. Ratynskaia, R. Kompaneets, A. V. Ivlev, C. Knapek, G. E. Morfill, Transport in strongly coupled two-dimensional complex plasmas: Role of the interaction potential, *Phys. Plasmas* **14** (1), 010702 (2007).
5. C. A. Knapek, A. V. Ivlev, B. A. Klumov, G. E. Morfill and D. Samsonov, Kinetic characterization of strongly coupled systems, *Phys. Rev. Lett.* **98** (1), 015001 (2007).
6. C. A. Knapek, D. Samsonov, S. K. Zhdanov, U. Konopka and G. E. Morfill, Recrystallization of a 2D plasma crystal, *Phys. Rev. Lett.* **98** (1), 015004 (2007).
7. S. Ratynskaia, K. Rypdal, C. Knapek, S. Khrapak, A. V. Milovanov, J. J. Rasmussen and G. E. Morfill, Superdiffusion and viscoelastic vortex flows in a two-dimensional complex plasma, *Phys. Rev. Lett.* **96** (10), 105010 (2006).
8. S. Ratynskaia, C. Knapek, K. Rypdal, S. Khrapak, G. E. Morfill, Statistics of particle transport in a two-dimensional dusty plasma cluster, *Phys. Plasmas* **12** (2), 022302 (2005).

Publications in Conference Proceedings

1. U. Konopka, M. Schwabe, C. Knapek M. Kretschmer, G. E. Morfill, Complex plasmas in strong magnetic field environments, 4th International Conference on Physics of Dusty Plasmas, *New Vistas in Dusty Plasmas*, AIP Conference Proceedings 799, 181–184 (2005).
2. C. Knapek, D. Samsonov, S. Zhdanov, U. Konopka, G. E. Morfill, Structural properties and melting of 2D-plasma crystals, 4th International Conference on Physics of Dusty Plasmas, *New Vistas in Dusty Plasmas*, AIP Conference Proceedings 799, 231–234 (2005).