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List of publications

- ▶ CB Smiet, A Thompson, P Bouwmeester, and D Bouwmeester. *Magnetic surface topology in decaying plasma knots*. IOP Publishing: **New Journal of Physics** 19 (2), 023046, **2017**. DOI: 10.1088/1367-2630/aa5de6. URL: <http://iopscience.iop.org/article/10.1088/1367-2630/aa5de6/meta>. 
- ▶ CB Smiet, S Candelaresi, A Thompson, J Swearngin, JW Dalhuisen, and D Bouwmeester. *Self-organizing knotted magnetic structures in plasma*. APS: **Physical Review Letters** 115 (9), 095001, **2015**. DOI: 10.1103/PhysRevLett.115.095001. URL: <https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.115.095001>. 
- ▶ CB Smiet, S Candelaresi, and D Bouwmeester. *Ideal relaxation of the Hopf fibration*. **Physics of Plasmas**, *under review*. URL: <https://arxiv.org/abs/1610.04719>. 
- ▶ CB Smiet, H de Blank, TA de Jong, D Kok, and D Bouwmeester. *Universal Growth Rate and Helical Reorganization in Self-organizing Knots*. **N.A.** *In preparation*.
- ▶ N Banerjee, CB Smiet, RGJ Smits, A Ozaeta, FS Bergeret, MG Blamire, and JWA Robinson. *Evidence for spin selectivity of triplet pairs in superconducting spin valves*. Nature Publishing Group: **Nature Communications** 5 (3048), **2014**. DOI: 10.1038/ncomms4048. URL: <https://www.nature.com/articles/ncomms4048>. 
- ▶ MG Blamire, CB Smiet, N Banerjee, and JWA Robinson. *Field modulation of the critical current in magnetic Josephson junctions*. IOP Publishing: **Superconductor Science and Technology** 26 (5), 055017, **2013**. DOI: 10.1088/0953-2048/26/5/055017. URL: <http://iopscience.iop.org/article/10.1088/0953-2048/26/5/055017/meta>. 



- ▶ F van Beijnum, C Rétif, CB Smiet, H Liu, P Lalanne, and MP van Exter. *Quasi-cylindrical wave contribution in experiments on extraordinary optical transmission*. Nature Publishing Group: **Nature** 492 (7429), 411–414, **2012**. DOI: 10.1038/nature11669. URL: <http://www.nature.com/nature/journal/v492/n7429/abs/nature11669.html>.



- ▶ F van Beijnum, C Rétif, CB Smiet, and MP van Exter. *Transmission processes in random patterns of subwavelength holes*. Optical Society of America: **Optics Letters** 36 (18), 3666–3668, **2011**. DOI: 10.1364/OL.36.003666. URL: <https://www.osapublishing.org/ol/abstract.cfm?uri=ol-36-18-3666>.

Curriculum Vitæ

Christopher Berg Smiet was born on the 4th of June 1987 in Tjele, Denmark. In 2010 Chris obtained his bachelor diploma in physics from Leiden University. His bachelor research was on the extraordinary optical transmission of metal hole arrays. He took part in the physics outreach activities by Stichting Rino during his studies, and was a member of the board from 2007-2008. In 2012 he graduated from the Casimir Pre-PhD program in experimental physics. His masters research was on triplet superconductivity in superconducting spin valves, and was performed at the Device Materials Group in Cambridge, UK.

Chris was awarded a Casimir PhD position on the basis of a research proposal. In January 2013 he started his PhD under Prof. Dr. Dirk Bouwmeester studying knotted magnetic structures in Plasma. During this research he built an experimental setup to measure laser-induced breakdown in atmospheric pressure gas using ICCD cameras. He also built and maintained the 3-node simulation cluster on which the simulations in this thesis were performed. Chris was a member of the Institute council and the Leiden PhD Platform during his graduate studies. During his PhD he spent time in Dundee, UK collaborating with the MHD group of Prof. Hornig, and has collaborated with the fusion theory group at the FOM DIFFER institute.

Chris will continue in research as long as he can find agencies willing to fund him in doing what he loves. He plans to apply the fundamental knowledge on self-organization acquired through his thesis research to problems in nuclear fusion and astrophysical plasma physics.

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I am eternally grateful to my parents for their loving support. I am thankful to and immensely proud of my twin sister Katrine whose dissertation in intersectional gender studies eclipses mine in both weight and social importance.