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Proximity effects in superconducting spin-valve structures

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List of Publications

1. R. S. Keizer, M. G. Flokstra, J. Aarts, and T. M. Klapwijk
Critical voltage of a mesoscopic superconductor
Phys. Rev. Lett. **96**, 147002 (2006)
2. M. Flokstra, J. Aarts
Domain-wall enhancement of superconductivity in superconductor/ferromagnet hybrids: Case of weak ferromagnets
Phys. Rev. B **80**, 144513 (2009)
3. M. Flokstra, J. M. v.d. Knaap and J. Aarts
Magnetic coupling in superconducting spin valves with strong ferromagnets
to be submitted to Phys. Rev. B
4. J. Aarts, C. Attanasio, C. Bell, C. Cirillo, M. Flokstra and J. M. v.d. Knaap
Superconductor / Ferromagnet hybrids : bilayers and spin switching
to appear in the Springer Series NanoScience and Technology
(eds. V. Moshchalkov and R. Wördenweber).
5. R. S. Keizer, M. G. Flokstra, J. Aarts, and T. M. Klapwijk
Critical voltage of a mesoscopic superconductor between normal electrodes
Proceedings of the 24th international conference on low temperature physics,
AIP Conference Proceedings 850, 755 (2006)

Curriculum Vitae

Machiel Flokstra

Born on the 10th of July 1979 in Oldenzaal, The Netherlands.

- 1991-1997 High school
 Thij college, Oldenzaal
- 1997-2003 M.Sc. Applied Physics
 Delft University of Technology.
 Graduate research in the group of prof.dr.ir. T.M. Klapwijk.
 Subject: Anomalous behavior in nano Schottky diodes
- 2004-2009 Ph.D. research at Universiteit Leiden
 Supervision by prof.dr. J Aarts
 Subject: Proximity effects in superconducting spin-valve structures

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I thank Ruurd Keizer for our many fruitful discussions about physics, which have been a driving force for my work. I am particularly proud of our long summer of modelling Green functions that started out purely as a hobby during weekends but eventually turned into a nice piece of scientific work.

With great pleasure I thank all of the MSM gang for the nice time we shared both in and out of the lab. In particular I want to thank Marcel Hesselberth for all the technical support and for keeping the sample fabrication facilities up and running... most of the time! Thanks to Chris Bell for pushing always enthusiastically for more measurements and to Jorina van der Knaap for helping me during my initial work on spin-valves. Thanks to Federica Galli for all the given compliments (and returning of lent items), to Carla Cirillo for sharing the "langzaam te leven" motto which became the start of many more office mottos. A big thanks goes to the Tibi-Taxi and both its chauffeurs, Oana and Tibi Sorop, it has been a place for physics discussions and, well, resting moments.

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During my PhD in Leiden I remained "faithful" to the flat in Delft where I lived as a student. I owe a lot of good moments to my flat mates Luc and Ruurd and also to our frequent visiting guests: Gerrit-Jan and Antonie, with whom we spend many weekends of overdosing on playing cards.

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