

## Publications

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### A Peer-reviewed publications

- (1) E. Scheer, H. Claus, J. Wosnitza, H. v. Löhneysen  
*Specific-heat anomaly of a ferromagnet in finite magnetic fields*  
Phys. Rev. B **40**, 5208 (1989), DOI: [10.1103/PhysRevB.40.5208](https://doi.org/10.1103/PhysRevB.40.5208)
- (2) E. Scheer, J. Wosnitza, H. v. Löhneysen  
*Specific heat of  $\text{Eu}_x\text{Sr}_{1-x}\text{Te}$*   
Z. Phys. B **85**, 79 (1991), DOI: [10.1007/BF01387790](https://doi.org/10.1007/BF01387790)
- (3) E. Scheer, J. Wosnitza, H. v. Löhneysen, R. Kirsch, M. Lang, F. Steglich  
*Critical exponents of  $\text{EuTe}$  from specific-heat and thermal-expansion measurements*  
J. Magn. Mag. Mat. **104-107**, 175 (1992), DOI: [10.1016/0304-8853\(92\)90753-B](https://doi.org/10.1016/0304-8853(92)90753-B)
- (4) B. Stroka, J. Wosnitza, E. Scheer, H. v. Löhneysen, W. Park, K. Fischer  
*Specific heat of  $\text{Eu}_x\text{Sr}_{1-x}\text{O}$  near the ferromagnetic phase transition*  
Z. Phys. B **89**, 39 (1992), DOI: [10.1007/BF01320827](https://doi.org/10.1007/BF01320827)
- (5) C. Büscher, T. Auerswald, E. Scheer, A. Schröder, H. v. Löhneysen, H. Claus  
*Ferromagnetic transition in dilute  $\text{Pd-Fe}$  alloys*  
Phys. Rev. B **46**, 983 (1992), DOI: [10.1103/PhysRevB.46.983](https://doi.org/10.1103/PhysRevB.46.983)
- (6) U. Köbler, I. Apfelstedt, W. Zinn, K. Fischer, E. Scheer, J. Wosnitza, H. v. Löhneysen, T. Brückel  
*Biquadratic exchange and critical behaviour in the diluted antiferromagnet  $\text{Eu}_x\text{Sr}_{1-x}\text{Te}$*   
Z. Phys. B **92**, 475 (1993), DOI: [10.1007/BF01320511](https://doi.org/10.1007/BF01320511)
- (7) E. Scheer, H. v. Löhneysen, H. Hein  
*Fabrication of noble-metal nanoconstrictions and observation of conductance fluctuations*  
J. Vac. Sci. Technol. B **12**, 3171 (1994), DOI: [10.1116/1.587494](https://doi.org/10.1116/1.587494)
- (8) E. Scheer, H. v. Löhneysen, A. Mirlin, P. Wölfle, H. Hein  
*Angular dependence of universal conductance fluctuations in noble-metal nanowires*  
Phys. Rev. Lett. **78**, 3362 (1997), DOI: [10.1103/PhysRevLett.78.3362](https://doi.org/10.1103/PhysRevLett.78.3362)
- (9) E. Scheer, P. Joyez, D. Esteve, C. Urbina, M. H. Devoret  
*Conduction channels transmissions of atomic-size aluminum contacts*  
Phys. Rev. Lett. **78**, 3535 (1997), DOI: [10.1103/PhysRevLett.78.3535](https://doi.org/10.1103/PhysRevLett.78.3535)

- (10) E. Scheer, N. Agrait, J. C. Cuevas, A. Levy Yeyati, B. Ludoph, A. Martín-Rodero, G. Rubio Bollinger, J. M. van Ruitenbeek, C. Urbina  
*The signature of chemical valence in the electrical conduction through a single-atom contact*  
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- (11) E. Scheer, W. Belzig, Y. Naveh, M. H. Devoret, D. Esteve, C. Urbina  
*Proximity effect and multiple Andreev reflections in gold atomic contacts*,  
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- (12) R. Häussler, E. Scheer, H. B. Weber, H. v. Löhneysen  
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- (13) T. Böhler, J. Grebing, A. Mayer-Gindner, H. v. Löhneysen, E. Scheer  
*Mechanically controllable break junctions for use as electrodes in molecular electronics*  
Nanotechnology **15**, 465 (2004), DOI: [10.1088/0957-4484/15/7/054](https://doi.org/10.1088/0957-4484/15/7/054)
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*Stable single-atom contacts of zinc whiskers*  
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- (17) E. Scheer, P. Konrad, C. Bacca, A. Mayer-Gindner, H. v. Löhneysen, M. Häfner, J. C. Cuevas  
*Correlation between transport properties and atomic configuration of atomic contacts of zinc, by low-temperature measurements*  
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Phys. Rev. B **74**, 245301 (2006), DOI: [10.1103/PhysRevB.74.245301](https://doi.org/10.1103/PhysRevB.74.245301)
- (19) C. Debuschewitz, F. Münstermann, V. Kunej, E. Scheer  
*A Compact and Versatile Scanning Tunnelling Microscope with High Energy Resolution for use in a <sup>3</sup>He Cryostat*  
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- (20) D. Guhr, D. Rettinger, J. Boneberg, A. Erbe, P. Leiderer, E. Scheer  
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*Electrical characterization of DNA in mechanically controlled break-junctions*  
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- (29) R. Waitz, O. Schecker, E. Scheer  
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- (30) T. Böhler, A. Edtbauer, E. Scheer  
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*Switchable zero-bias anomaly in individual C60 molecules contacted with tunable aluminum electrodes*  
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- (59) F. Kneier, T. Geldhauser, E. Scheer, P. Leiderer, J. Boneberg  
*Nanosecond laser pulse induced vertical movement of thin gold films on silicon determined by a modified Michelson interferometer*  
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