

Publications by  
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## A) SCI-listed journals with peer review

1. Stefan Nimmrichter, Klaus Hornberger, Philipp Haslinger, and Markus Arndt  
*Testing spontaneous localization theories with matter-wave interferometry*  
**Phys. Rev. A** **83**, 043621 (2011).
2. Sandra Eibenberger, Stefan Gerlich, Markus Arndt, Jens Tüxen, Marcel Mayor  
*Electric moments in molecule interferometry*  
**New J. Phys.** **13** 043033 (2011).
3. Stefan Gerlich, Sandra Eibenberger, Mathias Tomandl, Stefan Nimmrichter, Klaus Hornberger, Paul J. Fagan, Jens Tüxen, Marcel Mayor and Markus Arndt,  
*Quantum interference of large organic molecules*  
**Nature Comms.** **2**, 263 (2011)  
April 5<sup>th</sup> 2011, DOI 10.1038/ncomms1263  
**Featured by Nature Communications April 5<sup>th</sup> 2011**  
**Highlight by Nature April 5<sup>th</sup> 2011**
4. T. Juffmann, S. Nimmrichter, M. Arndt, H. Gleiter, and K. Hornberger  
*New prospects for de Broglie interferometry. Grating diffraction in the far-field and Poisson's spot in the near-field*  
**Foundations of Physics** (2011), DOI 10.1007/s10701-010-9520-5
5. Stefan Nimmrichter, Klemens Hammerer, Peter Asenbaum, Helmut Ritsch, and Markus Arndt  
*Master equation for the motion of a polarizable particle in a multimode cavity*  
**New J Phys.** **12**, 083003 (2010).
6. Agnieszka Dreas, Michael Müllneritsch, Thomas Juffmann, Carla Cioffi, Markus Arndt and Marcel Mayor  
*Immobilization of Zinc Porphyrin Complexes on Pyridine-Functionalized Glass Surfaces*  
**Langmuir** **26**(13), 10822–10826 (2010)
7. Jens Tüxen, Stefan Gerlich, Sandra Eibenberger, Markus Arndt\* and Marcel Mayor  
*De Broglie interference distinguishes between constitutional isomers*  
**Chem. Comm.** **46**, 4145–4147 (2010)
8. Michael Gring, Stefan Gerlich, Sandra Eibenberger, Stefan Nimmrichter, Tarik Berrada, Markus Arndt, Hendrik Ulbricht, Klaus Hornberger, Marcel Müri, Marcel Mayor, Marcus Boeckmann and Nikos Doltsinis.  
*Influence of conformational molecular dynamics on matter wave interferometry*  
**Phys. Rev. A** **81**, 031604(R) (2010)  
**APS: Selected for the Virtual Journal of Atomic Quantum Fluids, Vol 2, Issue 4 (2010)**
9. Thomas Juffmann, Stefan Truppe, Philipp Geyer, Sarayut Deachapunya, Hendrik Ulbricht and Markus Arndt  
*Wave and Particle in Molecular Interference Lithography*  
**Phys. Rev. Lett.** **103**, 263601 (2009).  
**PRL: Editor's Suggestions**  
**APS: Selected for the Virtual Journal of Nanoscale Science & Technology, Vol.11 (2010)**  
**APS: Selected for the Virtual Journal of Atomic Quantum Fluids Vol. 2 (1) (2010)**
10. Markus Arndt, Markus Aspelmeyer and Anton Zeilinger  
*How to extend quantum experiments*

- Fortschr. Phys. (2009), 57, 1153 – 1162 (2009)**
11. Markus Arndt, Thomas Juffmann and Vlatko Vedral.  
*Quantum Physics Meets Biology*,  
**HFSP Journal 3, 386-400 (2009)**  
[APS: Selected for the Virtual Journal of Quantum Information January 10 \(2010\)](#)  
[APS: Selected for the Virtual Journal of Biological Physics Research January 15, \(2010\)](#)
  12. William B. Case, Mathias Tomandl, Sarayut Deachapunya, and Markus Arndt  
*Realization of Optical Carpets in the Talbot and Lau Configurations*  
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  13. Markus Marksteiner, Alexander Divochiy, Michele Sclafani, Philipp Haslinger, Hendrik Ulbricht, Alexander Korneev, Alexander Semenov, Gregory Gol'tsman and Markus Arndt  
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  14. Markus Marksteiner, Philipp Haslinger, Michele Sclafani, Hendrik Ulbricht and Markus Arndt  
*UV and VUV ionization of organic molecules, clusters and complexes*  
**J. Phys. Chem. A 113 (37), pp 9952–9957 (2009).**
  15. Klaus Hornberger, Stefan Gerlich, Hendrik Ulbricht, Lucia Hackermüller, Stefan Nimmrichter, Ilya V. Goldt, Olga Boltalina and Markus Arndt  
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[IOP select, April 2009](#)
  16. Stefan Nimmrichter, Klaus Hornberger, Hendrik Ulbricht, Markus Arndt,  
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**Phys. Rev. A 78, 063607, 2008**  
also “Virtual Journal of Nanoscale Science & Technology”
  17. Stefan Gerlich, Michael Gring, Hendrik Ulbricht, Klaus Hornberger, Jens Tüxen, Marcel Mayor and Markus Arndt,  
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Angew. Chem. 120, 6290 –6293 (2008)  
[VIP paper and Cover Page at Angew. Chemie](#)
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22. Stefan Gerlich, Lucia Hackermüller, Klaus Hornberger, Alexander Stibor, Hendrik Ulbricht, Fabienne Goldfarb, Tim Savas, Marcel Müri, Marcel Mayor and Markus Arndt  
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[Research highlights by NATURE & NATURE PHYSICS \(8/2007\)](#)
23. Sarayut Deachapunya, Paul J. Fagan, Andras G. Major, Elisabeth Reiger, Helmut Ritsch, André Stefanov, Hendrik Ulbricht and Markus Arndt  
*Slow beams of massive molecules*  
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24. Martin Berninger, André Stefanov, Sarayut Deachapunya, and Markus Arndt  
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25. Sarayut Deachapunya, André Stefanov, Martin Berninger, Hendrik Ulbricht, Elisabeth Reiger, Nikos L. Doltsinis and Markus Arndt  
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31. Klaus Hornberger, Lucia Hackermüller, and Markus Arndt  
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**Physical Review A** **71**, 023601 (2005).

32. A. Stibor, K. Hornberger, L. Hackermüller, A. Zeilinger and M. Arndt  
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**Laser Physics 15**, 10-17 (2005).
33. Markus Arndt, Klaus Hornberger, and Anton Zeilinger  
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34. Markus Arndt, Lucia Hackermüller, and Elisabeth Reiger  
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• [Virtual Journal of Nanoscale Science & Technology, 8 \(10\), September 8 \(2003\)](#)
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41. Lucia Hackermüller, K. Hornberger, B. Brezger, A. Zeilinger and Markus Arndt  
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## B) Contributions to books

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### C) Conference proceedings

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85. Fabienne Goldfarb, Sarayut Deachapunya, André Stefanov, Alexander Stibor, Elisabeth Reiger and Markus Arndt  
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#### **D) Articles for a general physics audience**

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