

**Dr. Sabine Hossenfelder**

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**Education**

- Aug 2003: Ph. D., Theoretical Physics,  
J. W. Goethe Universität Frankfurt (Germany),  
'mit Auszeichnung' (excellent)  
Adviser: Prof. Dr. H. Stöcker  
Topic: "*Black Holes in Large Extra Dimensions*"
- Aug 2000: Diplom (M.S.), Physics,  
J. W. Goethe Universität Frankfurt (Germany),  
'mit Auszeichnung' (excellent)  
Adviser: Prof. Dr. Dr. hc. mult. W. Greiner  
Topic: "*Particle Production in Time Dependent Gravitational Fields*"
- July 1997: Vordiplom (B.S.), Mathematics,  
J. W. Goethe Universität Frankfurt (Germany),  
'sehr gut' (very good)

**Employment**

- Since 12/2015: Research Fellow, Frankfurt Institute for Advanced Studies, Germany
- 09/2009 - 11/2015: Assistant Professor at Nordita, Stockholm, Sweden
- 11/2010 - 03/2012: Parental leave
- 09/2006 - 08/2009: Postdoc at Perimeter Institute, Waterloo, Ontario, Canada
- 09/2005 - 08/2006: Postdoctoral Research Fellow, Department of Physics, University of California, Santa Barbara
- 2004-08/2005: Postdoctoral Research Fellow, Department of Physics, University of Arizona
- 2003-2004: Research Fellow of the GSI (Heavy Ion Society), Darmstadt, Germany
- 1999-2001: Instructor/Teaching Assistant for courses in mechanics, electrodynamics and quantum mechanics at Frankfurt University
- 1997-1999: Research Graduate Student at Frankfurt University, Germany.

**Publications**

More than 60 published research articles on topics in general relativity, quantum gravity, particle physics, quantum foundations, and statistical mechanics. Most of them single-authored.

Several book chapters and review articles. One book written, one book edited.

h-index (according to the Inspire database): 25

## 10 Representative Publications

1. S. Hossenfelder, “A Covariant Version of Verlinde’s Emergent Gravity,” Phys. Rev. D **95**, 124018 (2017), arXiv:1703.01415 [gr-qc].
2. S. Hossenfelder, “Analog Systems for Gravity Duals,” Phys. Rev. D **91**, no. 12, 124064 (2015) [arXiv:1412.4220 [gr-qc]].
3. S. Hossenfelder, “Theory and Phenomenology of Spacetime Defects,” Invited review, AHEP 950672 (2014), arXiv:1401.0276 [hep-ph].
4. S. Hossenfelder, “Minimal Length Scale Scenarios for Quantum Gravity,” Living Rev. Rel. **16**, 2 (2013), [arXiv:1203.6191 [gr-qc]].
5. S. Hossenfelder, “A possibility to solve the problems with quantizing gravity,” Phys. Lett. B **725**, 473 (2013) [arXiv:1208.5874 [gr-qc]].
6. S. Hossenfelder, “Experimental Search for Quantum Gravity,” Invited review, in “Classical and Quantum Gravity: Theory, Analysis and Applications,” Nova Science Publishers (2011), arXiv:1010.3420 [gr-qc].
7. S. Hossenfelder, “A Bi-Metric Theory with Exchange Symmetry,” Phys. Rev. D **78**, 044015 (2008) [arXiv:0807.2838 [gr-qc]].
8. S. Hossenfelder, “Interpretation of quantum field theories with a minimal length scale,” Phys. Rev. D **73**, 105013 (2006) [arXiv:hep-th/0603032].
9. S. Hossenfelder, M. Bleicher, S. Hofmann, J. Ruppert, S. Scherer and H. Stöcker, “Collider signatures in the Planck regime,” Phys. Lett. B **575** (2003) 85 [arXiv:hep-th/0305262].
10. S. Hossenfelder, S. Hofmann, M. Bleicher and H. Stöcker, “Quasi-stable black holes at LHC,” Phys. Rev. D **66** (2002) 101502 [arXiv:hep-ph/0109085].

## Organization and Management

Sabine has organized more than a dozen international conferences and workshops. She has also supervised and managed various outreach projects, such as the production of educational videos and information brochures, and served on numerous hiring committees.

## Public Outreach

Sabine regularly writes articles for a popular audience on research in physics. Her writing has been published, among others, in Scientific American, Spektrum der Wissenschaft, New Scientist, Quanta Magazine, Nautilus, and Aeon. She has also written a popular science book about the foundations of physics that will be published Spring 2018.

## Memberships

Sabine is a member of the German Physical Society, the American Physical Society, and the Foundational Questions Institute.