

FANG Nan

Institut für Informatik
Raum 2/228
Im Neuenheimer Feld 205
69120 Heidelberg
Germany

Phone: +49-6221-54-14325
Email: nan.fang@informatik.uni-heidelberg.de
Homepage: fangnan.org

Research Interests

Mathematical Logic, Computability Theory, and Algorithmic Randomness.

Education

Oct. 2015–	Ph.D. Student, Institut für Informatik, Universität Heidelberg, Germany
Sep. 2012– Jul. 2015	Master Student, Department of Philosophy, Peking University, China <i>thesis</i> : Solovay Functions and Algorithmic Randomness <i>supervisor</i> : Priv.-Doz. Wolfgang Merkle, Institut für Informatik, Universität Heidelberg & Assoc. Prof. Taotao Xing, Department of Philosophy, Peking University
Sep. 2008– Jun. 2012	Undergraduate, Department of Mathematics, Nanjing University, China <i>thesis</i> : Computable Analysis of Differentiation and Integration <i>supervisor</i> : Assoc. Prof. Hong Lu, Department of Mathematics, Nanjing University

Publication

1. *A left-c.e. real not computable by any Omega number with low redundancy*, Nan Fang and Wolfgang Merkle, in preparation.
2. *Granularity of wagers in games and the (im)possibility of savings*, George Barmpalias and Nan Fang, submitted.
3. *Monotonous betting strategies in warped casinos*, George Barmpalias, Nan Fang and Andy Lewis-Pye, submitted.
4. *Equivalences between learning of data and probability distributions, and their applications*, George Barmpalias, Nan Fang and Frank Stephan, *Information and Computation* 262 (2018) 123–140.
5. *Optimal asymptotic bounds on the oracle use in computations from Chaitin's Omega*, George Barmpalias, Nan Fang and Andy Lewis-Pye, *Journal of Computer and System Sciences* 82 (2016) 1283-1299.

Talks

1. *Monotonous betting strategies in warped casinos*, Journées du GT Calculabilités du GdR Informatique Mathématique, Paris, July 2 - 3, 2018.

2. *A left-c.e. real not computable by any Omega number with low redundancy*, Conference on Computability, Complexity and Randomness (CCR 2017), Mysore, July 3 - 7, 2017.
3. *Computing left-c.e. reals from Ω -numbers*, Montpellier - Heidelberg Workshop on Computability and Randomness, Maison de Heidelberg, Montpellier, June 16 - 17, 2016.
4. *Solovay Functions and No-Gap Phenomena*, Conference on Computability, Complexity and Randomness (CCR 2015), Institut für Informatik, Universität Heidelberg, Heidelberg, June 22 - 26, 2015.

Visitings, Summer Schools and Conferences Attendance (without talk)

1. Visiting Prof. George Barmpalias at Institute of Software, Chinese Academy of Science, Mar 6 - Apr 4, 2018.
2. "Aspects of Computation", Institute for Mathematical Sciences, National University of Singapore, Aug 28 - Sep 15, 2017.
3. "Computability, Randomness and Applications", CIRM, Jun 20 - 14 2016.
4. Visiting Dr. George Barmpalias at Institute of Software, Chinese Academy of Science, Sep 1 - 23, 2015.
5. "Focus Semester Computability and Randomness", Institut für Informatik, Universität Heidelberg, May 3 - Jun 30, 2015.
6. DAAD Exchange Student, Institut für Informatik, Universität Heidelberg, Nov 3, 2014 - Jan 30, 2015.
7. BASICS 2014 Summer School and Logic Summer School in China 2014, Shanghai Jiaotong University, Aug 18 - 29, 2014.
8. Asian Initiative for Infinity (AII) Graduate Summer School, Institute for Mathematical Sciences, National University of Singapore, Jun 23 - Jul 4, 2014.
9. Conference on Computability, Complexity and Randomness (CCR 2014), Institute for Mathematical Sciences, National University of Singapore, Jun 5 - 30, 2014.
10. Asian Initiative for Infinity (AII) Graduate Summer School, Institute for Mathematical Sciences, National University of Singapore, Jul 15 - 26, 2013.

Skills

Language: Mandarin Chinese(mother tongue), English(fluency), German(B1)

Computer: C++, Python, Latex