

# Curriculum Vitae

EEMELI BLÅSTEN  
HKUST Jockey Club Institute for Advanced Study  
*Email:* [eemeli.blasten@iki.fi](mailto:eemeli.blasten@iki.fi)  
*Web:* [drblasten.com](http://drblasten.com)

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## Personal information

Name	<b>Blåsten</b> , Eemeli Henrik (EEMELI HENRIK BLAASTEN)
Date of birth	23 June 1987 (age: 30)
Place of birth	Helsinki, Finland
Nationality	Finnish
Address	IAS5025, 5/F, Lo Ka Chung Building Lee Shau Kee Campus HKUST, Clear Water Bay Kowloon, Hong Kong
Telephone	+852 3469 2320 (office)
Mother tongue	Finnish
Other languages	English (C2 proficient user, self-assessed) French (C1 proficient user, self-assessed) Spanish (A2 basic user, self-assessed) Mandarin Chinese (HSK level 3)

## Working experience

- Postdoctoral research 2013–2018. Topics in partial differential equations and applications:
  - working on the *Smart Urban Water Supply Systems* project with Prof. Mohamed Ghidaoui, HKUST Department of Civil and Environmental Engineering, 15.5.2016 – present
  - IAS Postdoctoral Fellow under Prof. Gunther Uhlmann, HKUST Jockey Club Institute for Advanced Study, 1.9.2015 – present
  - Research scientist under Prof. Lassi Päivärinta, Department of Mathematics, Tallinn University of Technology, 5.1.2015 – 31.7.2015
  - Post-doctoral researcher under Professors Lassi Päivärinta and Gunther Uhlmann, Department of Mathematics and Statistics, University of Helsinki, 1.9.2013 – 31.12.2014
- Pre-PhD research 2007–2013:
  - Doctoral student under Prof. Lassi Päivärinta, Department of Mathematics and Statistics, University of Helsinki, 1.1.2009 – 31.8.2013
  - Research assistant under Prof. Lassi Päivärinta, Department of Mathematics and Statistics, University of Helsinki, 1.9.2007 – 31.12.2008
- Work in industry 2006–2007:
  - Assistant in a EU-wide research project about insurance companies' solvency and developing computer software, working under Pasi Laaksonen, Pohjola Insurance Company, 1.6.2007 – 31.8.2007
  - Assistant in a EU-wide research project about insurance companies' solvency, working under Pasi Laaksonen, Pohjola Insurance Company, 1.6.2006 – 31.7.2006

- Part-time assistant in writing MS Excel code related to measuring productivity, working under Olli Haltia, Savcor Indufor Oy, 1.11.2005 – 28.2.2006
- Interim work:
  - TET student, Stockmann One Way, 2 weeks in May 2003
  - Assistant supervisor at the Bengtsår summer camp, City of Helsinki, 1 week in August 2003

## Other academic work

- Refereeing: Inverse Problems (1 time), Inverse Problems and Imaging (2 times), Inverse Problems in Science & Engineering (1 time), Journal of Mathematical Analysis and Applications (1 time), SIAM Journal on Scientific Computing (1 time).

## Education

Doctor of Philosophy	University of Helsinki, Applied Mathematics, 19 June 2013, verification contact: <a href="mailto:registrar@helsinki.fi">registrar@helsinki.fi</a>
Licentiate of Philosophy	University of Helsinki, Applied Mathematics, 24 June 2010
Master of Science	University of Helsinki, Applied Mathematics, 17 October 2008
Bachelor of Science	University of Helsinki, Applied Mathematics, 17 October 2008
Highschool	Helsingin Matematiikkalukio, 3 June 2006
Primary School	Helsingin ranskalais-suomalainen koulu, 2003

## Awards

- Rolf Nevanlinna Research Foundation's award for the best thesis in mathematics in Finland in 2013
- Doctoral thesis approved with distinction
- Full score in the mathematics exam at matriculation, stipend by The Federation of Finnish Technology Industries

## Conference and seminar talks

- *Inverse backscattering with point-source waves*, 3<sup>rd</sup> East Asia Section of IPIA, Young Scholars Symposium, Hong Kong Baptist University, Hong Kong, 17 March 2018.
- *Applications of corner scattering: intrinsic properties of transmission eigenfunctions and single wave probing*, School of Mathematical Sciences, Fudan University, China, 5 December 2017.
- *Planar inverse boundary value problem for  $L_p$  potentials with  $p > 4/3$* , Analysis Seminar, Department of Mathematics and Statistics, University of Jyväskylä, Finland, 23 August 2017.
- *Inverse backscattering with point-source waves*, Inverse Problems Seminar, Department of Mathematics and Statistics, University of Helsinki, Finland, 17 August 2017.
- *Corners always scatter — quantitative results*, Applied Inverse Problems Conference 2017, Zhejiang University, Hangzhou, China, 31 May 2017.
- *Transmission eigenfunction localization*, Annual meeting of the Hong Kong Mathematical Society, The Hong Kong University of Science and Technology, Hong Kong, 20 May 2017.
- *Topics in Corner Scattering: Non-Scattering Waves, Potential Probing with a Single Incident Wave, and the Interior Transmission Problem*, NCTS PDE and Analysis Seminar, National Center for Theoretical Sciences, National Taiwan University, Taipei, Taiwan, 9 March 2017.
- *Inverse scattering using a single incident wave*, 2<sup>nd</sup> East Asia Section of IPIA, Young Scholars Symposium, National Center for Theoretical Sciences, National Taiwan University, Taipei, Taiwan, 5 November 2016.

- *Non-scattering energies, new resolvent estimates and other projects*, 1<sup>st</sup> East Asia Symposium of IPIA, South University of Science and Technology, Shenzhen, China, 29 February 2016.
- *Non-scattering energies and interior transmission eigenvalues*, Workshop on Inverse Problems and Related Topics, Zhejiang University, Hangzhou, China, 9 December 2015.
- *A new viewpoint to scattering theory à la Hörmander*, Spectral and Analytic Inverse Problems, Thematic Programme on Inverse Problems, Institut Henri Poincaré, Paris, France, 4 May 2015.
- *Solving the Inverse Problem for the 2D Schrödinger Equation with  $L_p$ -potential*, 17<sup>th</sup> Annual Workshop on Applications and generalizations of complex analysis, University of Aveiro, Aveiro, Portugal, 21 March 2015.
- *Solving the Inverse Problem for the 2D Schrödinger Equation with  $L_p$ -potential*, The 10<sup>th</sup> AIMS Conference on Dynamical Systems, Differential Equations and Applications, Instituto de Ciencias Matemáticas (ICMAT) and the Universidad Autónoma de Madrid (UAM), Madrid, Spain, 9 July 2014
- *Completeness of the generalized transmission eigenstates*, International Conference on Novel Directions in Inverse Scattering, University of Delaware, Delaware, USA, 29 July 2013.

### Academic visits

- Fudan University, visiting S. Lu, 3.–9.12.2017
- University of Jyväskylä, visiting M. Salo, 21.–25.8.2017
- University of Helsinki, visiting M. Lassas and S. Siltanen, 17.–18.8.2017
- NCTS, National Taiwan University, visiting J.N. Wang, 3.3. – 12.3.2017
- University of Washington, visiting G. Uhlmann, 3.5. – 17.5.2016
- École normale supérieure, visiting G. Uhlmann, 9.5. – 9.7.2014
- University of Washington, visiting J. Sylvester, 28.2. – 1.5.2014
- University of Tokyo, visiting M. Yamamoto, 11.2. – 18.2.2014
- Mittag-Leffler Institute, Inverse Problems and Applications programme, 14.1. – 14.3.2013
- Isaac Newton Institute for Mathematical Sciences, Inverse Problems programme, 24.7. – 27.8.2011
- Universidad Autónoma de Madrid, Special Trimester on Inverse Problems: Theoretical and Numerical Aspects of Inverse Problems and Scattering Theory, 15.5. – 11.6.2011
- Mathematical Sciences Research Institute, Inverse Problems and Applications programme, 1.11. – 30.11.2010

### Participation in mathematical competitions

- Mathematical Contest in Modeling MCM 2008, COMAP
- Nordic university-level mathematics team-competition 2007
- Mathematical Contest in Modeling MCM 2007, COMAP
- **Honourable mention**, International Mathematical Olympiad 2006, Slovenia
- Pythagoraan Polku – mathematics team competition 2006
- Nordic Mathematical Contest 2006
- **Meritorious Winner**, Mathematical Contest in Modeling MCM 2006, COMAP

- **3<sup>rd</sup> place, finals**, Finnish national highschool mathematics competition 2005–2006, MAOL
- **2<sup>nd</sup> place**, Baltic Way – mathematics team competition 2005
- International Mathematical Olympiad 2005, Mexico
- Nordic Mathematical Contest 2005
- Mathematical Contest in Modeling MCM 2005, COMAP
- Finnish national highschool mathematics competition 2004–2005, MAOL
- Viksu science competition 2005, The Academy of Finland
- Pythagoraan Polku – mathematics team competition 2004
- Nordic Mathematical Contest 2004
- Finnish national highschool mathematics competition 2003–2004, MAOL
- **2<sup>nd</sup> place, finals, 9<sup>th</sup> grade series**, Eesti matemaatikaolümpiaad 2002–2003, Estonia
- **1<sup>st</sup> place, finals**, Finnish national primary school mathematics competition 2002–2003, MAOL