

## Personal

Full name Sara Esther Arklint  
Born October 11, 1982, Denmark  
Citizenship Danish  
Home address Hiort Lorenzens Gade 2, 4.th  
2200 Kobenhavn N, Denmark  
Email address arklint@math.ku.dk

## Education

Mar 2012 PhD, University of Copenhagen. Mathematics. Advisor: S. Eilers.  
Jan 2008 Cand.scient., University of Copenhagen. Mathematics.  
Jun 2005 B.Sc., University of Copenhagen. Mathematics & rhetorics.

## Employment

2012– Postdoc (50%) & center administrator (50%) at Centre for Symmetry and Deformation, University of Copenhagen.  
2008–2011 PhD student, University of Copenhagen.  
2011 Half-time center administrator at Centre for Symmetry and Deformation, University of Copenhagen.  
2008 Research assistant, University of Copenhagen.  
2004–2007 Student teaching assistant, University of Copenhagen.

## International experience

2016 Institut Mittag-Leffler, January–April 2016. Program *Classification of operator algebras: complexity, rigidity, and dynamics*.  
2015 University of Hawai'i at Hilo, May–June 2015. Visited Assoc. Prof. E. Ruiz.  
2010 University of Göttingen, March–June 2010. Visited Prof. R. Meyer.  
2007 Fields Institute, University of Toronto, September–December 2007. Thematical program on operator algebras.

## Formalized collaboration

- European Commission Horizon 2020 RISE Network *New Geometry of Quantum Dynamics* (member), 2016–2019.
- NordForsk Researcher Network *Operator Algebras and Dynamics* (member), 2009–2012.

## Publications and preprints

- [0] *Classification of nonsimple  $C^*$ -algebras of real rank zero*, PhD thesis, Department of Mathematical Sciences, University of Copenhagen, 2012.
- [1] *Filtrated  $K$ -theory for  $C^*$ -algebras of real rank zero* (with G. Restorff and E. Ruiz), Internat. J. Math., **23** (2012), 19pp. arXiv:1112.1361.

- [2] *Reduction of filtered  $K$ -theory and a characterization of Cuntz-Krieger algebras* (with R. Bentmann and T. Katsura). *J. K-Theory* **14**, no. 3 (2014), 570–613. arXiv:1301.7223.
- [3] *Corners of Cuntz-Krieger algebras* (with E. Ruiz). *Trans. Amer. Math. Soc.* **367** (2015), 7595–7612. arXiv:1209.4336.
- [4] *Do phantom Cuntz-Krieger algebras exist?*, *Operator Algebra and Dynamics, Springer Proceedings in Mathematics & Statistics*, **58** (2013), 31–39. arXiv:1210.6515.
- [5] *The  $K$ -theoretical range of Cuntz-Krieger algebras* (with R. Bentmann and T. Katsura). *J. Funct. Anal.* **266** (2014), no. 8, 5448–5466. arXiv:1309.7162.
- [6] *Hereditary  $C^*$ -subalgebras of graph  $C^*$ -algebras* (with J. Gabe and E. Ruiz). Submitted. arXiv:1604.03085.
- [7] *Classification of real rank zero, purely infinite  $C^*$ -algebras with at most four primitive ideals* (with G. Restorff and E. Ruiz). *J. Funct. Anal.* **271** (2016), no. 7, 1921–1947. arXiv:1405.0672.
- [8] *A dynamical characterization of diagonal preserving  $*$ -isomorphisms of graph  $C^*$ -algebras* (with S. Eilers and E. Ruiz). To appear in *Ergodic Theory Dynam. Systems*. arXiv:1605.01202.
- [9] *The  $K$ -theoretical range of unital graph  $C^*$ -algebras* (with R. Bentmann). In preparation.

### Conference organization

- Organized master class *Classification of non-simple purely infinite  $C^*$ -algebras*, University of Copenhagen, July 22–26, 2013 with PhD student R. Bentmann. Approx. 30 participants.
- Junior coordinator at *European Mathematical Society's Joint Mathematical Weekend* at University of Copenhagen, Spring 2008. Approx. 180 participants.
- Assisted with conference organization as center administrator at Centre for Symmetry and Deformation, 2011–. On average 10 conferences, workshops, etc. per year with 20–160 participants.

### Talks

- Jan 2017 Danish-Norwegian Operator Algebra Workshop, Lysebu (*invited*).
- Nov 2016 Structure and Classification of  $C^*$ -algebras, Institute of Mathematics of the Polish Academy of Sciences (*invited*).
- Sep 2016 Analysis seminar, University of Glasgow.
- May 2016 Colloquium of the doctorate program Mathematische Strukturen in der modernen Quantenphysik, University of Göttingen.
- Feb 2016 Workshop Classification and dynamical systems I:  $C^*$ -algebras, Institute Mittag-Leffler.
- Jan 2016 Workshop Classification and discrete structures, Institute Mittag-Leffler.
- Apr 2015 Workshop on  $C^*$ -algebras: Structure and Classification, University of Münster (*invited*).
- Dec 2014 Danish-Norwegian Operator Algebra Workshop, Lysebu (*invited*).

- Sep 2014 Conference: Classification, SStructure, Amenability and Regularity (C StAR), University of Glasgow (*invited*).
- Jul 2014 Workshop on the Interactions between Operator Algebras & Dynamical Systems, University of Wollongong (*invited*).
- Dec 2013 Danish-Norwegian Operator Algebra Workshop, Schæffergården (*invited*).
- Nov 2013 SFB Miniworkshop on  $C^*$ -Algebras,  $C^*$ -Bundles, and Group Actions, University of Münster (*invited*).
- Jun 2013 26th Nordic Congress of Mathematicians, Lund University (*invited*).
- May 2013 Canadian Operator Symposium (COSy), Fields Institute.
- May 2013 Great Plains Operator Theory Symposium (GPOTS), UC Berkeley.
- Nov 2012 Workshop:  $C^*$ -Algebras, Dynamics, and Classification, Mathematisches Forschungsinstitut Oberwolfach.
- May 2012 Operator Algebra and Dynamics, NordForsk Network Closing Conference, University of the Faroe Islands (*invited*).
- Sep 2011 NordForsk Network Junior Workshop: Operator Algebra and Dynamics, University of Copenhagen (*invited*).
- May 2011 Canadian Operator Symposium (COSy), University of Victoria.
- May 2011 Great Plains Operator Theory Symposium (GPOTS), Arizona State University.
- Sep 2010 Workshop on classification of amenable  $C^*$ -algebras, Banff International Research Station.

### Evaluation

- 2015 Thesis examiner of PhD thesis *Applications of Topological Graph  $C^*$ -algebras to noncommutative solenoids* by Mitchell Richard Hawkins, University of Wollongong.
- 2015 External examiner of Master's Thesis in mathematics, University of Southern Denmark.
- 2014– *Censorkorpset i Matematik* (Danish corps of external examiners).

### Teaching

- Fall 2015 Lecturer and course designer of graduate course *K-theory for  $C^*$ -algebras* with Postdoc D. Enders.
- Summer 2015 Designed Danish-Norwegian master class *Symbolic Dynamics and Operator Algebras* with Prof. D. Lind, University of Washington, Assoc. Prof. M. Tomforde, University of Houston, and Postdoc A. Sørensen, University of Oslo.
- Spring 2015 Oral examiner at first-year course *Analysis 0 (An0)*.
- Spring 2014 Teaching assistant (exercise classes) and oral examiner at first-year course *Analysis 0 (An0)*.
- Fall 2010 Lecturer at one-week L<sup>A</sup>T<sub>E</sub>X course.
- Fall 2009 Lecturer and course designer of graduate course *Operator Algebras: Lifting Problems* with Postdoc T. Shulman.

Fall 2009 Lecturer at one-week L<sup>A</sup>T<sub>E</sub>X course. Redesigned course.

Fall 2009 Assistant course coordinator at first-year calculus course *Introduction to Mathematics (MatIntro)*.

Fall 2008 Teaching assistant (exercise classes) at graduate course in ring theory *Modern Algebra (ModAlg)*.

Fall 2008 Teaching assistant (“klasselærer”) and assistant course coordinator at first-year calculus course *Introduction to Mathematics (MatIntro)*.

Spring 2008 Teaching assistant (exercise classes and sporadic lectures) at graduate course on Galois theory *Algebra 4 (Alg4)*.

2004–2007 Student teaching assistant at 7 courses on graduate and undergraduate level (Galois theory, mathematical reasoning, statistics and probability): *Alg4, Alg3, MatM, Mat2SS*.

### Grants and stipends

- Institut Mittag-Leffler, 8-week postdoctoral fellowship grant. For program *Classification of operator algebras: complexity, rigidity, and dynamics*, 2016.
- Foundation for Danish-Norwegian Cooperation, two 4-day stays at the conference venues Lysebu and Schæffergården for 25 participants (worth approx. DKK 400,000), July 22–26 & August 2–6, 2015. With A. Sørensen, University of Oslo. For masterclass on symbolic dynamics and operator algebras.
- *Niels Bohr Fondet*, DKK 27,000, *Hotelejer Anders Månsson og hustru Hanne Månssons legat*, DKK 10,000, *Observator Julie Marie Vinter Hansens Rejselegat*, DKK 5,000. For visit to the Fields Institute, University of Toronto, 2007.
- *Adjunkt, frøken Constance Heides mindelegat*, DKK 7,000, 2006.

### Miscellanea

2006 Coordinator of non-scientific part (party, excursion, etc.) of the Danish Mathematical Society’s summer school at the University of Copenhagen.

2005–2007 Student representative at the study board at the Department of Mathematical Sciences, University of Copenhagen.

2004–2006 Head of the students’ council at the Department of Mathematical Sciences, University of Copenhagen.

2002–2009 Coordinator of the students’ mathematical colloquium at the Department of Mathematical Sciences, University of Copenhagen.

2002–2006 Member of editing group of the students’ magazine FAMØS at the Department of Mathematical Sciences, University of Copenhagen. Editor-in-chief 2004–2006.