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# Curriculum Vitæ

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**Henrik Densing Petersen**

Date of birth: 20/4/1984

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## **Formal accomplishments**

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**January, 2013** Ph.D. in mathematics, University of Copenhagen (academic advisor Ryszard Nest).

**August, 2009** M.Sc. in mathematics, University of Copenhagen.

**Summer, 2006** B.Sc. in mathematics, University of Copenhagen.

**Summer, 2000** Danish floorball junior championship with Vanløse Floorball.

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## **Employment history**

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**March 2013 – ???** Postdoctoral Researcher in Mathematics at EPFL.

**December 2009 – December 2012** Ph.D. stipend at University of Copenhagen.

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## **Administrative experience**

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**August 2010 - November 2012** Member of the Ph.D. committee at the Faculty of Science, University of Copenhagen.

**May 2011 - November 2012** Ph.D. student representative in the Cooperation committee at the Department of Mathematical Sciences, University of Copenhagen.

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## Peer reviewed publications

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- (2013-)2014 (with D. Kyed and S. Vaes)  *$L^2$ -Betti numbers of locally compact groups and their cross section equivalence relations*, to appear in Transactions of the American Mathematical Society.
- (2012-)2014 (with N. Monod) *An Obstruction to  $\ell^p$ -dimension*, to appear in Annales de l'Inst. Fourier (64), 2014.
- (2012-)2014 (with D. Kyed) *A Groupoid Approach to Lück's Amenability Conjecture*, to appear in Osaka J. Math., 2014.
- (2013-)2014 (with A. Valette)  *$L^2$ -Betti Numbers and Plancherel Measure*, Journal of Functional Analysis (266), 2014. pp. 3134–3155.
- (2011-)2013  *$L^2$ -Betti Numbers of Locally Compact Groups*, Comptes Rendus Mathematique (351), 2013. pp. 339–342.
- (2007-)2012 (with F. Topsøe) *Computation of universal objects for distributions over co-trees*, IEEE Transactions on Information Theory. **58** (12), 2012. pp. 7021–7035.
- Abbrided version with announcements appeared as *Universal coding for distributions over co-trees* in ISIT 2009, IEEE International Symposium on Information Theory, proceedings, p. 709-713.

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## Various other work

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- 2012  *$L^2$ -Betti Numbers of Locally Compact Groups*. Ph.D. Thesis, University of Copenhagen. Available at [arXiv.org/abs/1104.3294](http://arxiv.org/abs/1104.3294)
- 2007 *Composability in a certain family of entropies*, preprint. Not for publication. Available at <http://arxiv.org/abs/0705.0739>

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## Forthcoming work

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- 2014 (with D. Kyed) *Quasi-isometries of Nilpotent Groups*, preprint.
- 2015 *The Analytical Minimum*, textbook. Tentative.