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Education and Positions

Positions

•2015 - present: Associate Professor (Lektor) at University of Southern Denmark
Head of research section in Analysis since October 2019

•2013 - 2015: Assistant Professor (Adjunkt) at University of Southern Denmark
Funded by a Lundbeck Foundation research grant.

•2012 - 2013: Postdoc at the Katholieke Universitet Leuven (Belgium)

•2010 - 2011: Postdoc at the Georg-August-Universität Göttingen (Germany).
Funded by a postdoctoral grant from the Danish Research Council (FNU).

•2009 (fall): Visisting researcher at the Hausdorff Research Institute for Mathematics,
Bonn (Germany).

•2008 - 2009 Postdoc at the Georg-August-Universität Göttingen (Germany).

Education

• May 2008 PhD in Mathematics from the University of Copenhagen (Denmark)

• Feb. 2005 MSc (Cand.Scient) in Mathematics from the University of Copenhagen (Denmark).

Prizes

Årets Underviser 2018 (NAT)
Kyed, David (Recipient), 2018

Publications

Preprints

♦ K. Aguilar, J. Kaad and D. Kyed, Polynomial approximation of quantum Lipschitz functions, Preprint 2021, arXiv: 2104.04317

♦ K. Aguilar . Kaad and D. Kyed, The Podleś spheres converge to the sphere, *Preprint* 2021 arXiv:2102.12761

Peer reviewed journal publications

♦ T. Gotfredsen, J. Kaad and D.Kyed, Gromov-Hausdorff convergence of quantisedintervals, *Journal of Mathematical Analysis and Applications* (toappear), arXiv:2007.09694

♦ T. Gotfredsen and D. Kyed.Cohomological induction and uniform measure equivalence, *FundamentaMathematicae* (to appear) arXiv:1904.03862.

♦ J. Koivisto, D. Kyed and S.Raum. Measure equivalence for non-unimodular groups, *Transformation Groups*(to appear) arXiv:1805.09063.

♦ J. Kaad and D. Kyed. Dynamics of compactquantum metric spaces, *Ergodic Theory and Dynamical Systems* (to appear),arXiv:1904.13278.

♦ J.Koivisto, D. Kyed and S. Raum. Measure equivalence and coarse equivalence forunimodular locally compact groups, *Groups, Geometry and Dynamics* (toappear), arXiv:1703.08121.

♦ D. Kyed and H.D. Petersen, Polynomialcohomology and polynomial maps on nilpotent groups, *Glasgow MathematicalJournal* (to appear), arXiv:1503.04068.

♦ V. Alekseev and D. Kyed. Uniqueness questionsfor C^*-norms ongroup rings, *Pacific Journal ofMathematics* 298(2),2019.

♦ J. Bichon, D. Kyed and S. Raum, Higher l^2-Bettinumbers of universal quantum groups,*Canadian Mathematical Bulletin* 61(2), 2018.

♦ D. Kyed and S. Raum, On the l^2-Bettinumbers of universal quantum groups, *MathematischeAnnalen*, 369(3),2017.

♦ D. Kyed, Sven Raum, Matthias Valvekens andStefaan Vaes. L^2-Betti numbers of rigid C^*-tensor categories and discrete quantum groups, *Analysisand PDE* 10 (7), 2017.

♦ D. Kyed, Topologizing Lie algebracohomology, *Differential Geometry and its Applications* 49,2016.

♦ D. Kyed, Henrik D. Petersen and StefaanVaes, L^2-Betti numbers of locally compact groupsand their crosssection equivalence relations, *Transactions of the AMS* 367, 2015.

♦ V. Alekseev and D. Kyed, Measure continuousderivations on von Neumann algebras andapplications to L^2-cohomology,*Journal of Operator Theory* 73 (1), 2015.

♦ D. Kyed and Henrik D. Petersen, A groupoidapproach to Lück's amenability conjecture, *Osaka Journal of Mathematics* 51 (4), 2014.

♦ D. Kyed and A. Thom, Applications ofFølner's condition to quantum groups, *Journal of Noncommutative Geometry* 7 (2), 2013.

♦ V. Alekseev and D. Kyed, Amenability andvanishing of L^2-Betti numbers: an operatoralgebraic approach, *Journalof Functional Analysis,* 263 (4), 2012.

♦ D. Kyed and P. M. Soltan, Property (T) andexotic quantum group norms, *Journal of NoncommutativeGeometry* 6 (4),2012**.**

♦ D. Kyed, An L^2-Künneth formulafor tracial algebras, *Journal of Operator Theory*, 67 (2), 2012.

♦ D. Kyed, On the zeroth L^2-homologyof compact quantum groups, *Münster Journal of Mathematics*, no. 4, 2011.

♦ D. Kyed, A cohomological description ofproperty (T) for quantum groups, J*ournal of Functional Analysis*, 261 (2011).

♦ D. Kyed, L^2-Betti numbers ofcoamenable quantum groups, *Münster Journal of Mathematics*, no. 1, 2008.

♦ D. Kyed, L^2-homology for compactquantum groups, *Mathematica Scandinavica*, 103 (1), 2008.

Other publications

♦ D. Kyed, L2-invariants for quantum groups, PhDthesis. ISBN 978-87-91927-22-5.

♦ D. Kyed, Uniqueness of group-measure spaceCartan subalgebras, Notes following Adrian Ioana's IHP lectures, May 2011,Preprint, arXiv:1110.3508.

Grants

2020: Carsberg foundation conference grant (DKK 59.900 = € 8.000)
Conference celebrating the scientific contributions of Ryszard Nest
Main participants: D. Kyed (PI) and J. Kaad (co-PI)

2019-2023: DFF research project 1 (DKK 2,377,440 = € 318,394)
Classical and Quantum Distances
Main participants: D. Kyed (PI) and J. Kaad (co-PI)

2017-2021: DFF research project 2 (DKK 5,497,658 = € 736,031)
Automorphisms and Invariants of Operator Algebras
Main participants: W. Szymanski (PI), S. Eilers, J. Kaad, D. Kyed, R. Nest, K. Thomsen and S. Thorbjørnsen

2015-2018: Villum Foundation Research Grant (DKK 4,596,900 = € 617,493)
Local and global structures of groups and their algebras
Main participants: W. Szymanski (PI) and D. Kyed (co-Pi)

2013-2015: Lundbeck Foundation research grant (DKK 1,255,706 = € 168,446)
Amenability and Rigidity in non-commutative geometry
Main participants: David Kyed (PI)

2010-2012: DFF Postdoctoral Grant (DKK 1,238,098 = € 166,056)
L^2-invariants in non-commutative Geometry
Main participants: David Kyed (PI)

Talks and conference organization

• Around 50 invited research talks at conferences, workshops and other research institutions

• 10 invited survey talks for broader mathematical audiences and outreach lectures for non-experts.

Conferences organized

1. *Ryszard Nest's retirement conference*, spring 2021.
2. *Automorphisms and Invariants of Operator Algebras*, October 2021
3. *Operator Algebras and NCG*, Special session at the NCM, August 2021
4. *Workshop on the Thompson groups*, August 2016

More information

See http://www.imada.sdu.dk/~dkyed for more information