

Curriculum Vitae for Peter Jørgensen

Born in Denmark 12.1970; Danish citizen

Ph.D. from the University of Copenhagen 10.1997

Professor of Mathematics at the University of Newcastle since 09.2006

ADDRESS

School of Mathematics and Statistics
University of Newcastle
Newcastle upon Tyne NE1 7RU
United Kingdom

Phone: +44(0)191 222 7288
Fax: +44(0)191 222 8020
E-mail: peter.jorgensen@ncl.ac.uk

EDUCATION

University of Copenhagen, Ph.D. in Mathematics Thesis: "Synthetic Commutative Algebra"	10.1997
University of Copenhagen, M.Sc. in Mathematics Thesis: "Grothendieck Duality"	05.1994
University of Copenhagen, B.Sc. in Mathematics and Physics	06.1992

EMPLOYMENT

Professor of Mathematics at the University of Newcastle	09.2006–
University Research Fellow at the University of Leeds	09.2003–08.2006
Research Librarian at the Danish Royal Library	01.2002–08.2003
Post Doc. at the University of Copenhagen, interrupted by	02.2000–12.2001
Post Doc. at the University of Bielefeld	09.2000–12.2000
Database Administrator at the Danish Royal Library	02.1999–01.2000
Post Doc. at the University of Copenhagen, interrupted by	10.1997–01.1999
Post Doc. at the University of Antwerp	09.1998–12.1998

RECENT TALKS

Mathematics Colloquium, Queen's University Belfast	11.2009
Algebra Seminar, University of Leeds	11.2009
Algebra Seminar, University of Glasgow	10.2009
Talk at the Workshop on Derived Categories in Algebra, Topology and Geometry, University of Leicester	09.2009
Talk at the Workshop on Non-commutative Algebraic Geometry and Related Topics, Kyoto University	08.2009
Talk at the 25th Nordic and 1st British-Nordic Congress of Mathematicians, Oslo	06.2009
Algebra and Topology Seminar, University of Copenhagen	03.2009
Talk at the Conference on Triangulated Categories, Swansea University	12.2008
Algebra Seminar, University of Leicester	11.2008

Colloquium, University of Southern Denmark	09.2008
Talks at Symposium on Ring Theory in connection with Representation Theory and Homological Algebra, Osaka Prefecture University	07.2008
Algebra Seminar, University of Hannover	06.2008
Algebra Seminar, University of Leeds	04.2008
Algebra and Topology Seminar, University of Copenhagen	01.2008
Talk at Workshop on Derived Categories, CRM Barcelona	11.2007
Talk at the International Conference on Representations of Algebras XII, University of Torun	08.2007
Algebra Seminar, University of Bristol	06.2007
Algebra Seminar, University of Leicester	06.2007
Algebra and Topology Seminar, University of Copenhagen	03.2007
Pure Mathematics Colloquium, University of Sheffield	11.2006
Talk at the First Copenhagen Conference on Topology	09.2006
Mathematics Colloquium, University of Nebraska-Lincoln	04.2006
Talk at Workshop on Non-commutative Algebras, University of Münster	02.2006
Talk at Meeting of the Bristol-Leicester-Oxford Colloquium on Representation Theory, University of Leicester	12.2005
Algebra Seminar, University of Århus	10.2005
Representation Theory Seminar, University of Oxford	05.2005
Algebra Seminar, University of Århus	02.2005

EDITING

I am an editorial adviser for the main publications (Bulletin, Journal, and Proceedings) of the London Mathematical Society.

GUEST POSITIONS

Visiting Professor at Osaka Prefecture University	07.2008
---	---------

POSTGRADUATE SUPERVISION

David Pauksztello	10.2004–09.2008
Thesis: “Homological properties of Differential Graded algebras”	
Daniel Maycock	10.2007–
Puiman Ng	10.2007–

TEACHING

Undergraduate Algebra Course (24 lectures and ~140 students), Newcastle	2009
Undergraduate Group Theory Course (24 lectures and ~35 students)	2008
Undergraduate Algebra Course (24 lectures and ~120 students)	2008
Undergraduate Group Theory Course (24 lectures and ~50 students)	2007
Undergraduate Algebra Course (24 lectures and ~120 students)	2007

Undergraduate Group Theory Course (24 lectures and ~35 students)	2006
Undergraduate Group Theory Course (22 lectures and ~140 students), Leeds	2006
Graduate course on Goldie's Theorem	2004
Undergraduate Algebra Course (60 lectures and ~100 students), Copenhagen	2001
Undergraduate Algebra Course (60 lectures and ~100 students)	2000
Graduate course based on my lecture notes "Non-commutative projective geometry"	1998
Undergraduate drop in sessions	1996 and 1998
Numerous smaller classes (algebra, calculus, combinatorics, linear algebra)	1992–1997

I supervised bachelor projects in 2001/2, 2003/4, 2005/6, 2007/8 (twice), and 2008/9.

GRANTS

£3,500 grant from the London Mathematical Society for Conference on Triangulated Categories in Leeds (with Thorsten Holm and Raphaël Rouquier)	08.2006
£5,000 grant from the Leverhulme Trust for Conference on Triangulated Categories in Leeds (with Thorsten Holm and Raphaël Rouquier)	08.2006
£500 grant from the Royal Society for academic visit to Århus	10.2005
Euro 6,000 grant for Post Doc. position in Bielefeld from the European Science Foundation network "Non-commutative Geometry"	09.2000–12.2000
Euro 5,600 grant for Post Doc. position in Antwerp from the EU network "Algebraic Lie Representations"	09.1998–12.1998

ADMINISTRATION ETC.

Member of the Research Committee of the School of Mathematics at the University of Newcastle	03.2008–08.2009
Member of the Academic Steering Committee of the MAGIC Consortium	04.2007–
Member of the Postgraduate Committee of the School of Mathematics at the University of Newcastle	01.2007–
Postgraduate Selector for Pure Mathematics at the University of Newcastle	01.2007–08.2009
Representative for Pure Mathematics in the Library Committee of Leeds University Library	08.2005–08.2006
Organiser of the Algebra Seminar at the University of Leeds	01.2006–08.2006
Organiser (with Thorsten Holm and Raphaël Rouquier) of Conference on Triangulated Categories at the University of Leeds (satellite conference of the International Congress of Mathematicians 2006)	08.2006
Liaison between the Danish Royal Library and MathSciNet and Zentralblatt MATH	2002–2003
Organiser of the Algebra Seminar at the University of Copenhagen	2000–2001
Member of IT Committees of the Danish Royal Library	1999 and 2002–2003

PUBLICATIONS

The following list is chronologically ordered. The publications are available electronically from my webpage, <http://www.staff.ncl.ac.uk/peter.jorgensen>

- [1] *Serre-duality for Tails(A)*, Proc. Amer. Math. Soc. **125** (1997), 709–716
- [2] *Non-commutative graded homological identities*, J. London Math. Soc. (2) **57** (1998), 336–350
- [3] *Local cohomology for non-commutative graded algebras*, Comm. Algebra **25** (1997), 575–591
- [4] *Non-commutative Castelnuovo-Mumford regularity*, Math. Proc. Cambridge Phil. Soc. **125** (1999), 203–221
- [5] *Brown Representability for stable categories*, Math. Scand. **85** (1999), 195–218
- [6] *Properties of AS-Cohen-Macaulay algebras*, J. Pure Appl. Algebra **138** (1999), 239–249
- [7] *Gorenstein homomorphisms of non-commutative rings*, J. Algebra **211** (1999), 240–267
- [8] *Intersection theory on non-commutative surfaces*, Trans. Amer. Math. Soc. **352** (2000), 5817–5854
- [9] With J. J. Zhang, *Gourmet’s Guide to Gorensteinness*, Adv. Math. **151** (2000), 313–345
- [10] *Spectra of modules*, J. Algebra **244** (2001), 744–784
- [11] *Triangulated functors, homological functors, tilts, and lifts*, Manuscripta Math. **110** (2003), 381–406
- [12] *Non-commutative curves and their zeta functions*, J. Algebra Appl. **1** (2002), 175–199
- [13] With A. Frankild, *Foxby equivalence, complete modules, and torsion modules*, J. Pure Appl. Algebra **174** (2002), 135–147
- [14] With A. Frankild, *Affine equivalence and Gorensteinness*, Math. Scand. **95** (2004), 5–22
- [15] With A. Frankild, *Gorenstein Differential Graded Algebras*, Israel J. Math. **135** (2003), 327–354
- [16] With A. Frankild and S. Iyengar, *Dualizing Differential Graded modules and Gorenstein Differential Graded Algebras*, J. London Math. Soc. (2) **68** (2003), 288–306
- [17] With A. Frankild, *Homological identities for Differential Graded Algebras*, J. Algebra **265** (2003), 114–135
- [18] *Linear free resolutions over non-commutative algebras*, Compositio Math. **140** (2004), 1053–1058
- [19] *Recognizing dualizing complexes*, Fund. Math. **176** (2003), 251–259
- [20] *Auslander-Reiten theory over topological spaces*, Comment. Math. Helv. **79** (2004), 160–182
- [21] *The Auslander-Reiten quiver of a Poincaré duality space*, Algebr. Represent. Theory **9** (2006), 323–336
- [22] *A non-commutative BGG correspondence*, Pacific J. Math. **218** (2005), 357–377
- [23] *Ext vanishing and infinite Auslander-Buchsbaum*, Proc. Amer. Math. Soc. **133** (2005), 1335–1341
- [24] *Auslander-Reiten sequences on schemes*, Ark. Mat. **44** (2006), 97–103.
- [25] *Finite flat and projective dimension*, Comm. Algebra **33** (2005), 2275–2279
- [26] *The homotopy category of complexes of projective modules*, Adv. Math. **193** (2005), 223–232
- [27] *Existence of Gorenstein projective resolutions and Tate cohomology*, J. Eur. Math. Soc. (JEMS) **9** (2007), 59–76
- [28] With H. Holm, *Cohen-Macaulay homological dimensions*, Rend. Sem. Mat. Univ. Padova **117** (2007), 87–112
- [29] With H. Holm, *Semidualizing modules and related Gorenstein homological dimensions*, J. Pure Appl. Algebra **205** (2006), 423–445
- [30] *Symmetry theorems for Ext vanishing*, J. Algebra **301** (2006), 224–239
- [31] *Finite Cohen-Macaulay type and smooth non-commutative schemes*, Canad. J. Math. **60** (2008), 379–390
- [32] *Recollement for Differential Graded Algebras*, J. Algebra **299** (2006), 589–601
- [33] *A new recollement for schemes*, Houston J. Math. **35** (2009), 1071–1077
- [34] *Amplitude inequalities for Differential Graded modules*, Forum Math., in press

- [35] With H. Holm, *Compactly generated homotopy categories*, Homology, Homotopy Appl. **9** (2007), 257–274
- [36] With H. Holm, *Covers, precovers, and purity*, Illinois J. Math. **52** (2008), 691–703
- [37] *Auslander-Reiten triangles in subcategories*, J. K-theory **3** (2009), 583–601
- [38] *Quotients of cluster categories*, Proc. Roy. Soc. Edinburgh Sect. A **140** (2010), 65–81
- [39] *Reflecting recollements*, Osaka J. Math., in press
- [40] With A. J. Frankild, *Homological properties of cochain Differential Graded algebras*, J. Algebra **320** (2008), 3311–3326
- [41] *Calabi-Yau categories and Poincaré duality spaces*, pp. 399–431 in “Trends in Representation Theory of Algebras and Related Topics” (edited by Andrzej Skowroński), European Mathematical Society Publishing House, Zürich, 2008
- [42] With T. Holm, *On the relation between cluster and classical tilting*, J. Pure Appl. Algebra **214** (2010), 1523–1533
- [43] With M. Grime, *Compactly generated relative stable categories*, Algebr. Represent. Theory, in press
- [44] With H. Holm, *Rings without a Gorenstein analogue of the Govorov-Lazard Theorem*, preprint (2008)
- [45] With T. Holm, *On a triangulated category of infinite Dynkin type, and the relation to triangulations of the infinity-gon*, preprint (2009)
- [46] With H. Holm, *Cotorsion pairs induced by duality pairs*, Journal of Commutative Algebra **1** (2009), 621–633
- [47] With K. Kato, *Symmetric Auslander and Bass categories*, preprint (2010)
- [48] With T. Holm, *Triangulated categories: Definitions, properties and examples*, to appear in “Triangulated categories” (edited by Holm, Jørgensen, and Rouquier), London Math. Soc. Lecture Note Ser., vol. 375, Cambridge University Press, Cambridge, 2010