

**NIGEL HIGSON**  
CURRICULUM VITAE

**Contact Information**

711 Fairway Road, State College, PA 16803.  
Home: 814-231-2038; Office: 814-231-5764; Fax: 814-865-3735.  
<http://www.math.psu.edu/higson>

**Personal**

Married to Yvonne M. Gaudelius.  
One child, Julia M. Higson.  
US citizen.

**Education**

- 1986     PhD, Dalhousie University, Halifax Nova Scotia  
          Supervisor: Dr. P.A. Fillmore  
          Thesis Title: *Algebraic K-theory of stable  $C^*$ -algebras*
- 1983     MSc, Dalhousie University, Halifax Nova Scotia  
          Supervisor: Dr. P.A. Fillmore  
          Thesis Title: *On Kasparov theory*
- 1982     BA, Dalhousie University, Halifax Nova Scotia

**Positions held**

- 2006-     Evan Pugh Professor of Mathematics, Penn State University
- 2003-06   Head of the Department of Mathematics, Penn State University
- 2000-06   Distinguished Professor of Mathematics, Penn State University
- 1996     Stanislaw Ulam Visiting Professor, The University of Colorado
- 1994-99   Professor of Mathematics, Penn State University
- 1990-94   Associate Professor of Mathematics, Penn State University
- 1989-90   Assistant Professor of Mathematics, Penn State University
- 1986-90   Assistant Professor of Mathematics, The University of Pennsylvania
- 1986     Postdoctoral Fellow, Dalhousie University

Visiting positions at The University of Warwick, Odense Universitet, The University of Victoria, Université Aix-Marseille II, Université Louis Pasteur, Strasbourg and The University of Chicago.

## NIGEL HIGSON — CURRICULUM VITAE

### Honors and awards

- 2006 Plenary Address to the British Mathematical Colloquium
- 2002 Plenary Address to the Australian Mathematical Society Annual Meeting, Newcastle, NSW
- 2001 Atherton Award for Excellence in Teaching, Penn State University
- 2000 Fellow, Royal Society of Canada
- 1999 DeLong Lecturer, The University of Colorado
- 1999 Clay Mathematics Institute Prize Fellowship
- 1999 C.I. Noll Teaching Award, Eberly College of Science, Penn State University
- 1998 Invited Lecturer, International Congress of Mathematicians, Berlin
- 1998 Plenary Address to the American Mathematical Society, State College Sectional Meeting
- 1996 Coxeter James Prize of the Canadian Mathematical Society
- 1995 Israel Halperin Prize of the Canadian Operator Symposium
- 1995 André Aisenstadt Prize of the Centre de Recherches Mathématiques, Montreal
- 1994 Plenary Address to the Canadian Mathematical Society Summer Meeting, Edmonton
- 1992 Sloan Foundation Fellowship
- 1990 Penn State University Research Initiation Grant
- 1989 University of Pennsylvania Natural Sciences Association Young Faculty Award
- 1989 University of Pennsylvania Department of Mathematics Good Teaching Award

### Current funding

- 2006 National Science Foundation DMS-0607879 (with J. Roe)  
Total Funding: \$900,000 over five years
- 2006 National Science Foundation DMS-0611653 (with J. Roe)  
Conference support grant  
Total Funding: \$19,380
- 2005 National Science Foundation DMS-0436183 (with G. Andrews, A. Katok, S. Katok and S. Tabachnikov)  
Total Projected Funding: \$1,246,603 over five years

## NIGEL HIGSON — CURRICULUM VITAE

### Past funding

Research continuously funded by National Science Foundation operating grants since 1986. Other funding is listed below.

- 2005 National Science Foundation DMS-0100464 supplement (with J. Roe)  
Conference support grant  
Total Funding: \$9,774
- 2004 Fields Institute conference grant (with B. Tsygan and M. Khalkali)  
Total funding: CA\$10,000
- 2004 National Science Foundation DMS-0436183 (with G. Andrews, A. Katok,  
J. Roe and S. Tabachnikov) MASS program  
Total Funding: \$75,000 (one year)
- 2000 National Science Foundation DMS-0074062 Focussed Research Group  
Total Funding: \$207,303 (four years)
- 1999 National Science Foundation DMS-9810759 VIGRE program  
(with G. Mullen, D. Arnold and A. Katok)  
Total Funding: \$2,286,472 (six years)
- 2000 American Mathematical Society conference grant  
for Joint Summer Research Conference to be held June 2000  
(with A. Connes, J. Roe and G. Yu)  
Total AMS Funding: \$70,000. Additional funding was made available  
by the Clay Mathematics Institute, which sponsored an instructional  
symposium during the conference.
- 1999 Clay Mathematics Institute Prize Fellowship  
Total Funding: \$24,940 (one year)
- 1992 Sloan Foundation Research Fellowship  
Total Funding: \$30,000 (three years)
- 1992 National Science Foundation INT 91-13392 (With Paul Baum)  
Total Funding: \$15,226 (three years)
- 1990 Penn State University Research Initiation Grant  
Total funding: \$6,810
- 1989 University of Pennsylvania Natural Sciences Association  
Young Faculty Award  
Total funding: \$30,000 (declined)

### Teaching

Courses at all levels from calculus to advanced graduate seminars. Typical load is three courses per year (9 credit hours per year).

Graduate level lecture courses or lecture series delivered in Odense, Denmark (1996), Boulder (1996), Les Diablerets, Switzerland (1998), Strasbourg (2000), Mount Holyoke (2000), Martina Franca, Italy (2000), Vanderbilt University (2003 and 2004), University of Oslo (2004), Fudan Uni-

## NIGEL HIGSON — CURRICULUM VITAE

versity, Shanghai (2004), Marseille (2004), Ottawa (2005) and Canberra (2005).

### **Current PhD students**

Uuye Otgonbayar

Chris George

John Skukalek

### **Former PhD students**

Robert Yuncken

PhD 2006, Penn State

Postdoctoral Fellow, University of Muenster

Erik van Erp

PhD 2005, Penn State

Clay Liffoff Fellow and Postdoctoral Fellow, University of Pennsylvania

Dmitri Matsnev

PhD 2005, Penn State

Postdoctoral Fellow, Instituto Superior Técnico, Lisbon

Dmitri Gerenrot

PhD 2004, Penn State

VIGRE Postdoctoral Fellow, Georgia Tech

Eli Hawkins

PhD 2002, Penn State

Marie Curie Fellow, Radboud University, Nijmegen

Dorin Dumitrascu

PhD 2001, Penn State

Postdoctoral Fellow, University of Arizona

Heath Emerson

PhD 2001, Penn State

Tenure-Track Assistant Professor, University of Victoria

Rachel Hall

PhD 1999, Penn State

Tenured Associate Professor, Saint Joseph's University

Navin Keswani

PhD 1998, University of Maryland

Analyst, KPMG, Sydney, Australia

John Golden

PhD 1996, Penn State

Tenured Associate Professor, Grand Valley State University

John D. Trout

PhD 1995, Penn State (jointly advised with P. Baum)

Tenured Associate Professor, Dartmouth College

**Former PhD students, Continued**

Erik Guentner

PhD 1994, Penn State

Tenured Associate Professor, University of Hawaii

NSF CAREER investigator

**PhD Thesis Committees**

Viet-Trung Luu (Phd 2005, Mathematics, Penn State)

Shantanu Dave (Phd 2005, Mathematics, Penn State)

Hyun Jeong Kim (Phd 2005, Mathematics, Penn State)

Ben Chacon (Phd 2004, Mathematics, Penn State)

Bahram Rangipour (PhD 2003, Mathematics, University of Western Ontario)

Cynthia Piez (Mathematics Education, Penn State)

Susan Feeley (Mathematics Education, Penn State)

Jacek Wisniewski (PhD 2002, Physics, Penn State)

Nick Wright (PhD 2002, Mathematics, Penn State)

Marco Zagermann (PhD 2000, Physics, Penn State)

Michel Matthey (PhD 2000, Mathematics, Université de Neuchatel)

Kresimir Josic (PhD 1999, Mathematics, Penn State)

Cedric Beguin (PhD 1999, Mathematics, Université de Neuchatel)

Mingze Yang (PhD 1996 Mathematics, University of Saskatchewan)

Troy Schilling (PhD 1996, Physics, Penn State)

Paulo Piccione (PhD 1995, Mathematics, Penn State)

Shingo Okamoto (PhD 1991, Mathematics, Penn State)

Hitoshi Moriyoshi (PhD 1990, Mathematics, Penn State)

**MSc students**

Beatrice Riviere, MSc 1995

Rebecca Hai, MSc 1995

**Service to the Profession**

2006 Editorial Committee, Journal of Noncommutative Geometry

2005 External Review Committee, Department of Mathematics, IUPUI

2005 Organizing Committee, Workshop on  $K$ -theory and the Geometry of Groups, University of Hawaii, Manoa

2005 Advisory Committee, Fields Institute Summer School in Operator Algebras

2004 Coorganizer, Fields Institute Mini-conference on Noncommutative Geometry, the Local Index Formula and Hopf Algebras

2004 AMS University Lecture Series Editorial Committee

2001 Coorganizer, Penn State-NSF workshop on Nonpositive Curvature and Analysis

2001 Program Committee, Mathematical Sciences Research Institute  
Conference on *Noncommutative geometry*

**Service to the Profession, Continued**

- 2000 Organizing Committee, American Mathematical Society/Scandinavian Mathematical Society Special Session on *C\*-algebras and K-theory*
- 2000 Organizing Committee, American Mathematical Society Joint Summer Research Conference/Clay Mathematics Institute Instructional Symposium on *Noncommutative geometry*
- 1999 Organizer, NSF-funded Penn State Workshop on *Uniformly bounded representations and K-theory*
- 1998 Organizing Committee, American Mathematical Society Special Session on *Applications of C\*-algebras to geometry and topology*,
- 1996 Organizing Committee, *Perspectives in K-Homology*, NSF-supported conference in honor of P. Baum
- 1995 Organizing Committee, Canadian Operator Symposium
- 1995–00 Associate Editor, Canadian Mathematical Society Journals
- 1994 Organizer, Fields Institute Workshop on *The Baum-Connes Conjectures*
- 1993-95 Program Committee, Fields Institute Special Year on Operator Algebras
- 1990 Organizer, Penn State Workshop on *Operator Algebras and Index Theory*
- 1988 Organizing Committee, 1988 US–USSR Symposium on Mathematics and Mathematical Physics University of Pennsylvania  
 Referee for: *K-Theory*; *Inventiones*; *Duke Math. J.*; *J. Pure Appl. Alg.*; *J. Operator Theory*; *Amer. Math. Soc.*; *Can. Math. Soc.*; *London Math Soc*; *Amer. Math. Monthly*; *Geom. & Functional Anal.*; *Pac. J. Math.*  
 Proposal reviewer and panelist for NSF (Analysis and Geometry/Topology)

**Service to the University**

Department Head, 2003-2006.

*Other past department-level duties:* VIGRE Committee, Computer Committee, Space Committee, Operator Algebras Subject Area Committee, Graduate Qualifying Examination Committees, Freshman advising, Course coordination, Student Awards Committee, Graduate Qualifying Examination Committees (analysis and geometry/topology), Shapiro Fund Committee, Policy Committee, Promotion and Tenure Committee, Personnel Committee, Graduate Committee, Associate Head of the Department.

*Past college-level duties:* College Faculty Scholar Medal Selection Committee, College Promotion and Tenure Committee, College Sabbatical Review Committee, Chemerda Lecture Committee, Headship Search Committees.