

Wojciech Szymanski  
Department of Mathematics and Computer Science (IMADA)  
Mathematics  
Email: szymanski@imada.sdu.dk  
Phone: 65502381  
Mobile: 61263189



## Publications

### **An algebraic framework for noncommutative bundles with homogeneous fibres**

Brzeziński, T. & Szymanski, W., 2021, In: Algebra & Number Theory. 15, 1, p. 217-240

### **The polynomial endomorphisms of graph algebras**

Johansen, R., Sørensen, A. P. W. & Szymanski, W., 27. Oct 2020, In: Groups, Geometry, and Dynamics. 14, 3, p. 1043-1075

### **Noncommutative Fiber Bundles**

Szymański, W., 2020, *Geometric Methods in Physics XXXVIII*. Kielanowski, P., Odziejewicz, A. & Previato, E. (eds.). Cham: Birkhäuser Verlag, p. 373-379 (Trends in Mathematics).

### **On Conjugacy of Subalgebras of Graph C\*-algebras**

Mikkelsen, S. E., Szymanski, W., Hong, J. H. & Hayashi, T., 2019, *Geometric Methods in Physics XXXVII : : Workshop 2018*. Birkhäuser Verlag, p. 163-173 (Trends in Mathematics).

### **On the quantum flag manifold $SU_q(3)/T^2$**

Brzeziński, T. & Szymański, W., 2019, *Geometric Methods in Physics XXXVII: Workshop and Summer School, Białowieża, Poland, 2018*. Springer, p. 129-139 (Trends in Mathematics).

### **Visualizing automorphisms of graph algebras**

Avery, J. E., Johansen, R. & Szymanski, W., 1. Feb 2018, In: Proceedings of the Edinburgh Mathematical Society. 61, 1, p. 215-249

### **The C\*-algebras of quantum lens and weighted projective spaces**

Brzeziński, T. & Szymanski, W., 2018, In: Journal of Noncommutative Geometry. 12, 1, p. 195-215

### **On cohomology for product systems**

Hong, J. H., Son, M. J. & Szymanski, W., 2017, In: Banach Journal of Mathematical Analysis. 11, 2, p. 282-294

### **On endomorphisms of the Cuntz algebra which preserve the canonical UHF-subalgebra, II**

Hayashi, T., Hong, J. H. & Szymanski, W., 2017, In: Journal of Functional Analysis. 272, 2, p. 759-775

### **Pure infiniteness and ideal structure of C\*-algebras associated to Fell bundles**

Kwasniewski, B. & Szymanski, W., 2017, In: Journal of Mathematical Analysis and Applications. 445, 1, p. 898-943

### **Topological aperiodicity for product systems over semigroups of Ore type**

Kwasniewski, B. & Szymanski, W., 2016, In: Journal of Functional Analysis. 270, 9, p. 3453-3504

### **On conjugacy of MASAs and the outer automorphism group of the Cuntz algebra**

Conti, R., Hong, J. H. & Szymanski, W., Apr 2015, In: Proceedings of the Royal Society of Edinburgh Section A: Mathematics. 145, 2, p. 269-279

### **On Normalizers of $C^*$ -Subalgebras in the Cuntz Algebra $O_n$ . II**

Hayashi, T. & Szymanski, W., 2015, In: Banach Journal of Mathematical Analysis. 9, 4, p. 379-383

### **The Weyl group of the Cuntz algebra**

Conti, R., Hong, J. H. & Szymanski, W., 20. Dec 2012, In: Advances in Mathematics. 231, 6, p. 3147-3161

### **Endomorphisms of graph algebras**

Conti, R., Hong, J. H. & Szymanski, W., 1. Dec 2012, In: Journal of Functional Analysis. 263, 9, p. 2529-2554

### **KMS states on Nica-Toeplitz algebras of product systems**

Hong, J. H., Larsen, N. S. & Szymanski, W., Dec 2012, In: International Journal of Mathematics. 23, 12, p. 1250123 38 p.

### **Analysis of Endomorphisms**

Conti, R., Hong, J. H. & Szymanski, W., 2012, In: Journal of Physics: Conference Series (Online). 346, 1, p. 1-7 7 p.

### **Automorphisms of the Cuntz algebras**

Conti, R. & Szymanski, W., 2012, *Progress in operator algebras, noncommutative geometry, and their applications: Proceedings of the 4th annual meeting of the European Noncommutative Geometry Network, Bucharest, April 25-30, 2011*. Popescu, I. & Purice, R. (eds.). Bucharest: Theta, p. 1-15 (Theta Series in Advanced Mathematics).

### **Endomorphisms of graph $C^*$ -algebras**

Szymanski, W., 2012, In: Oberwolfach Reports. 9, 2, p. 1183-1229

### **Endomorphisms of the Cuntz algebras**

Conti, R., Hong, J. H. & Szymanski, W., 2012, In: Banach Center Publications. 96, p. 81-97

### **The Cuntz algebra $Q_N$ and $C^*$ -algebras of product systems**

Hong, J. H., Larsen, N. S. & Szymanski, W., 2012, *Progress in operator algebras, noncommutative geometry, and their applications: Proceedings of the 4th annual meeting of the European Noncommutative Geometry Network, Bucharest, April 25-30, 2011*. Popescu, I. & Purice, R. (eds.). Bucharest: Theta, p. 97-109 (Theta Series in Advanced Mathematics).

### **The restricted Weyl group of the Cuntz algebra and shift endomorphism**

Conti, R., Hong, J. H. & Szymanski, W., 2012, In: Journal fuer die Reine und Angewandte Mathematik. 2012, 667, p. 177-191

### **Labeled trees and localized automorphisms of the Cuntz algebras**

Conti, R. & Szymanski, W., 2. Jun 2011, In: Transactions of the American Mathematical Society. 363, 11, p. 5847-5870

### **$C^*$ -algebras asociated to $C^*$ -correspondences and applications to mirror quantum spheres**

Robertson, D. & Szymanski, W., 2011, In: Illinois Journal of Mathematics. 55, 3, p. 845-870

### **More localized automorphisms of the Cuntz algebras**

Conti, R., Kimberley, J. & Szymanski, W., 1. Oct 2010, In: Proceedings of the Edinburgh Mathematical Society. 53, 3, p. 619-631 12 p.

### **On invariant MASAs for endomorphisms of the Cuntz algebras**

Hong, J. H., Skalski, A. & Szymanski, W., 2010, In: Indiana University Mathematics Journal. 59, 6, p. 1873-1892 20 p.

### **Endomorphisms of $O_n$ which preserve the canonical UHF-subalgebra**

Conti, R., Rørdam, M. & Szymanski, W., 1. Aug 2009, In: Journal of Functional Analysis. 259, 3, p. 602-617 16 p.

### **Computing the Jones index of quadratic permutation endomorphisms of $O_2$**

Szymanski, W. & Conti, R., 1. Jan 2009, In: Journal of Mathematical Physics. 50, 10 p.

**Noncommutative balls and mirror quantum spheres**

Szymanski, W. & Hong, J. H., 3. Mar 2008, In: Journal of the London Mathematical Society. 77, 3, p. 607-626 20 p.

**A pseudo-cocycle for the comultiplication on the quantum  $SU(2)$  group**

Szymanski, W. & Hong, J. H., 1. Jan 2008, In: Letters in Mathematical Physics. 83, 1, p. 1-11 11 p.

**On localized automorphisms of the Cuntz algebras which preserve the diagonal subalgebra**

Szymanski, W., 2008, *New development of Operator Algebras*. Matsumoto, K. (ed.). Vol. 1587. p. 109-115 7 p. (R.I.M.S. Kokyuroku; No. 1587).

**Inhibitory zinc-enriched terminals in mouse spinal cord**

Danscher, G., Jo, S. M., Varea, E., Wang, Z., Cole, T. B. & Schröder, H. D., 2001, In: Neuroscience. 105, 4, p. 941-947 6 p.

**Zinc-enriched boutons in rat spinal cord.**

Schröder, H. D., Danscher, G., Jo, S. M. & Su, H., 16. Jun 2000, In: Brain Research. 868, 1, p. 119-22 3 p.

**Activities****Operator algebras and single operators via dynamical properties of dual objects (External organisation)**

Wojciech Szymanski (Member)

1. Oct 2014 → 30. Sep 2016

**Local and global structures of groups and their algebras (External organisation)**

Wojciech Szymanski (Member)

2014 → 2018

**FNU International Networks (External organisation)**

Wojciech Szymanski (Member)

2013

**Operator algebras, dynamical systems and quantum information (External organisation)**

Wojciech Szymanski (Member)

2013 → 2015

**Operator algebras, dynamical systems and quantum information theory (External organisation)**

Wojciech Szymanski (Member)

2013 → 2015

**Operator algebra and dynamics**

Wojciech Szymanski (Organizer)

15. May 2012 → 20. May 2012

**Endomorphisms, semigroups and  $C^*$ -algebras of rings**

Wojciech Szymanski (Organizer)

8. Apr 2012 → 14. Apr 2012

**Endomorphisms of graph algebras**

Wojciech Szymanski (Speaker)

Apr 2012

**Endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
12. Mar 2012

**Experimental mathematics in number theory, operator algebras and topology (External organisation)**

Wojciech Szymanski (Member)  
2012 → 2015

**Endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
18. Dec 2011

**RIMS**

Wojciech Szymanski (Visiting researcher)  
1. Dec 2011 → 15. Jan 2012

**Product systems of Hilbert bimodules and their C\*-algebras**

Wojciech Szymanski (Speaker)  
Nov 2011

**Graph C\*-algebras and applications**

Wojciech Szymanski (Lecturer)  
Oct 2011

**Korea Maritime University**

Wojciech Szymanski (Visiting researcher)  
Dec 2010 → Jan 2011

**Endomorphisms of graph algebras**

Wojciech Szymanski (Speaker)  
Oct 2010

**Introduction to K-theory of C\*-algebras**

Wojciech Szymanski (Lecturer)  
Sep 2010

**Localized endomorphisms of graph algebras**

Wojciech Szymanski (Speaker)  
Jul 2010

**Endomorphisms of Cuntz algebras**

Wojciech Szymanski (Speaker)  
Jun 2010

**Quantum groups and graph algebras**

Wojciech Szymanski (Speaker)  
Jun 2010

**University of Leeds**

Wojciech Szymanski (Visiting researcher)  
Jun 2010 → ...

**Endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
May 2010

**Lancaster University**

Wojciech Szymanski (Visiting researcher)  
May 2010 → ...

**Localized endomorphisms of graph algebras**

Wojciech Szymanski (Speaker)  
May 2010

**C\*-algebras of directed graphs**

Wojciech Szymanski (Speaker)  
Mar 2010

**Hilbert modules and their C\*-algebras**

Wojciech Szymanski (Speaker)  
Mar 2010

**Permutative endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
Mar 2010

**Polish Academy of Sciences**

Wojciech Szymanski (Visiting researcher)  
Mar 2010 → ...

**University of Oslo**

Wojciech Szymanski (Visiting researcher)  
Mar 2010 → ...

**Structure and symmetry (External organisation)**

Wojciech Szymanski (Chairman)  
1. Jan 2010 → 31. Dec 2012

**Endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
Dec 2009

**Korea Maritime University**

Wojciech Szymanski (Visiting researcher)  
Dec 2009 → Jan 2010

**Localized endomorphisms of the Cuntz algebras**

Wojciech Szymanski (Speaker)  
Jan 2009

**Polish Academy of Sciences**

Wojciech Szymanski (Visiting researcher)  
Jan 2009 → ...

**Geometry and symmetry of quantum spaces (External organisation)**

Wojciech Szymanski (Member)  
2009 → 2013

**Noncommutative geometry (External organisation)**

Wojciech Szymanski (Member)

2009 → 2011

**Operator algebra and dynamics (External organisation)**

Wojciech Szymanski (Member)

2009 → 2012

**Operator algebras and applications (External organisation)**

Wojciech Szymanski (Member)

2009 → 2011

**On permutation related automorphisms of the Cuntz algebras**

Wojciech Szymanski (Lecturer)

12. Dec 2008

**Localized automorphisms of the Cuntz algebras**

Wojciech Szymanski (Lecturer)

20. Nov 2008

**Spectral geometry and invariant theory for principal extensions of noncommutative algebras (External organisation)**

Wojciech Szymanski (Member)

2007 → 2010