

Education and Experience

Formal qualifications

Ph.D. in Mathematics, 1993, University of Cincinnati.
M.Sc. in Mathematics, 1986, Busan National University.
BS in Mathematics, 1977, Busan National University.

Employment history

2019-2020 Guest Researcher, University of Southern Denmark, Odense.
2019- Professor Emeritus, Korea Maritime University.
2005-2018 Professor in Mathematics, Korea Maritime University.
2000-2005 Associate Professor in Mathematics, Korea Maritime University.
1996-2000 Assistant Professor in Mathematics, Korea Maritime University.
1994-1996 Lecturer in Mathematics, Korea Maritime University.
1993-1994 Instructor in Mathematics, Busan National University.
1988-1993 Teaching Assistant in Mathematics, University of Cincinnati.
1988-1988 Instructor in Mathematics, Busan National University.
1985-1987 Teaching Assistant in Mathematics, Busan National University

Research and Scholarship

Invited addresses

- Invited address, 37 Workshop on Geometric Methods in Physics, Białowieża (Poland), July 2018.
- Invited address, Joint Meeting of the Korean Mathematical Society and the Mathematical Society of Japan, Seoul National University, October 2016.
- Invited address, Special Session on Operator Algebras and Operator Theory, Annual Meeting of the Korean Mathematical Society, Chungnam National University, April 2010.
- Invited address, Special Session on Operator Theory and Operator Algebras, Joint Meeting of the Korean Mathematical Society and the American Mathematical Society, Seoul, December 2009.
- Seminar, Operator Algebra, University of Southern Denmark, Odense (Denmark), February 2009.
- Colloquium at Department of Mathematics, Ajou University, October 2008.
- Invited address, NIMS Conference on Functional Analysis and its Applications, National Institute in Mathematical Sciences, October 2008.
- Invited address, Special Session on Operator Algebras and Operator Theory, Annual Meeting of the Korean Mathematical Society, KAIST, October 2007.
- Invited address, International Colloquium on Integrable Systems and Quantum Symmetries, Czech Technical University, Prague (Czech Republic), June 2006.
- Invited address, Special Session on Operator Algebras and Operator Theory, Annual Meeting of the Korean Mathematical Society, April 2006.
- Keynote address, International Conference on Functional Analysis, June 2005.
- Invited address, Annual Meeting of the Korean Mathematical Society, Hannam University, April 2005.
- Invited address, International Conference on Operator Theory and its Applications (KOTAC), June 2004.
- Invited address, Special Session on Operator Algebras and Representation Theory, 2004 Victoria International Conference, Wellington (New Zealand), February 2004.
- Invited address, Annual Meeting of the Korean Mathematical Society, Seoul, October 2003.
- Invited address, Special Session on Operator Algebras, 5th International Congress of Industrial and Applied Mathematics, Sydney (Australia), July 2003.
- Seminar, GARC Operator Algebra, Seoul National University, November 2002.
- Seminar, GARC Operator Algebra, Seoul National University, November 2002.
- Colloquium at Department of Mathematics, Seoul National University, May 2002.
- Invited address, Special Session on Analysis, Annual Meeting of the Pusan-Kyungnam Branch of the Korean Mathematical Society, July 2001.
- Seminar, Department of Mathematics, Seoul National University, November 2001.
- Seminar, Department of Mathematics, Chungnam National University, June 2001.
- Invited address, US-Japan Seminar, Operator Algebras and their Applications, University of Kyushu, Fukuoka (Japan), June 1999.
- Invited address, Annual Meeting of the Korean Mathematical Society, Seoul, April 1999.
- Invited address, Annual Meeting of the Korean Mathematical Society, Cheongjoo, April 1998.
- Invited address, GARC conference in Operator Algebra, Seoul National University, December 1997.
- Invited address, International Conference on Operator Algebras and Operator Theory, East China National University, Shanghai (China), July 1997.
- Seminar, Operator Algebra, University of Newcastle (Australia), August 1996.
- Invited address, Annual Meeting of the Mathematical Society of Japan, Kyushu University, Fukuoka (Japan), January 1996.

- Seminar, Department of Mathematics, University of Ulsan, September 1995.
- Invited address, Annual Meeting of the Mathematical Society of Japan, Kyushu University, Fukuoka (Japan), August 1994.
- Invited address, Annual Meeting of the Busan-Kyungnam Branch of the Korean Mathematical Society, August 1994.
- Colloquium at Department of Mathematics, Sinla University, June 1994.
- Invited address, GARC Conference in Operator Algebra, Seoul National University, February 1994.
- Invited address, Great Plains Operator Theory Symposium, University of Colorado, Boulder (USA), May 1993.

Longer research visits

- 2019 (3 weeks), visiting researcher, Faculty of Physics, Astronomy and Applied Computer Science, Jagiellonian University, Cracow (Poland).
- 2014 (3 weeks), visiting researcher, Fields Institute, Toronto (Canada).
- 2013-2014 (12 months), research sabbatical stay, University of Southern Denmark, Odense (Denmark).
- 2013 (2 weeks), Research-in-Pairs at Mathematisches Forschungsinstitut Oberwolfach (Germany).
- 2011 (2 months), visiting researcher, University of Southern Denmark, Odense (Denmark).
- 2005-2007 (20 months), visiting professor, University of Newcastle (Australia).
- 2005 (4 months), professorial research fellow of the Australian Research Council, University of Newcastle (Australia).
- 2003 (1 month), visiting professor, Münster University (Germany).
- 2002 (1 month), visiting researcher, Max-Planck Institute, Bonn (Germany).
- 2000-2001 (12 months), visiting professor, University of Newcastle (Australia).
- 1996 (2months), postdoctoral fellow of the Japan Society for the Promotion of Science at Kyushu University, Fukuoka (Japan).

External grants

- J. H. Hong, National Research Foundation of Korea, Basic Research Grant, Outer automorphism group of the Cuntz algebra, 2016-2018.
- J. H. Hong. National Research Foundation of Korea, Basic Research Grant, Symmetries in graph algebras and their interplay with dynamical systems, 2012-2015.
- J. H. Hong (PI) and M. J. Son, National Research Foundation of Korea, Basic Research Grant, Product systems of Hilbert bimodules and their applications, 2010-2012.
- J. H. Hong, National Research Foundation of Korea, Basic Research Grant, Automorphisms of graph algebras and applications, 2008-2010.
- J. H. Hong (PI) and W. Szymański, Australian Research Council Linkage International Fellowship, The structure of quantum groups, 2006-2007.
- J. H. Hong, Korea Science and Engineering Foundation--Australian Academy of Science, Scientist Exchange Program (short term), 2005.
- J. H. Hong, Korea Research Foundation, Leading Researcher Grant, Quantum spaces, their symmetries and generalized Cuntz-Krieger algebras, 2004-2007.
- J. H. Hong, Korea Research Foundation, Pure Basic Research in Natural Sciences Grant, Classification of graph C^* -algebras, 2003-2004.
- W. Szymański (PI) and J. H. Hong, Australian Academy of Science/Korea Exchange Program, The structure of graph algebras, 2002.
- J. H. Hong, Korea Science and Engineering Foundation, Basic Research Grant, Quantum manifolds and generalized Cuntz-Krieger algebras, 2002-2004.
- W. Szymański (PI) and J. H. Hong, Australian Academy of Science/Korea Exchange Program, Subfactors and Hopf algebras, 1999.
- J. H. Hong, Korea Research Foundation, Basic Research Grant, Cohomological deformations of bicrossed product Hopf algebras, 1997-1998.
- J. H. Hong, Short-term postdoctoral fellowship, Japan Society for the Promotion of Science, 1996.

Internal grants from the Korea Maritime University

- J. H. Hong, Research Grant, 2013-2014.
- J. H. Hong, Research Grant, 2012-2012.
- J. H. Hong, Research Grant, 2000-2001.

Service

Editorial work

- Bulletin of the Korean Mathematical Society}, editor 2006-2017.
- East Asian Mathematical Journal}, editor 2001-2003.

Memberships and Community Service

- Member of the Committee for Gender Equality, Korea Maritime University, 2013.
- Member of the Planning Committee and University Council of the Korea Maritime University, 2011-2012.
- Head of Department of Data Information, Korea Maritime University, 2011-2012.
- Council member of the Association of Female Professors in Busan-Kyungnam Area, 2005-2007.
- Head of Center for Promotion of Women Researchers, Graduate School, Korea Maritime University, 2005-2006.
- Head of School of Mathematical and Physical Sciences, Korea Maritime University, 2005-2006.
- Auditor, Korea Women in Mathematical Sciences, 2004-2006.
- Regional Director of the Korea Women in Mathematical Sciences, 2004-2006.
- Founding organizer of the Association of Female Professors in Busan-Kyungnam Area, 2004.
- Founding organizer of the Korea Women in Mathematical Sciences, 2004.
- Director of the Basic Research Center, Korea Maritime University, 1999-2000.
- Head of Department of Applied Mathematics, Korea Maritime University, 1999-2000.

Conference organization

- Main organizer, Inaugural Workshop for Promoting Women Scientists, Korea Maritime University, Busan, December 2005.
- Main organizer, 1st Winter Regional Meeting of the Korea Women in Mathematical Sciences, Korea Maritime University, Busan, December 2004.

Academic Service

- Panel member of the National Research Foundation of Korea, 2010-2015.
- Panel member of the Korea Science and Engineering Foundation, 2009-2011.
- Panel member of the Association of Korean Women Scientists and Engineers, 2006-2007.
- Associate Member in Mathematics, Korea Institute for Advanced Study, 2006-2010.
- Committee member of the Busan-Kyungnam Branch of the Korean Mathematical Society, 2000-2003.
- Council member of the Korean Mathematical Society, 2000-2003.
- Council member of the Busan-Kyungnam Branch of the Korean Mathematical Society, 1999-2000.
- Reviewer for the Mathematical Reviews of the American Mathematical Society, 1994--.

PhD thesis examination

- 2013, Benjamin Maloney, University of Wollongong (Australia), Semigroups actions on higher-rank graphs and their C^* -algebras, supervisor: Prof. David Pask.
- 1998, Nam Joo Wu, University of Ulsan, Generalized Toeplitz algebras and reduced crossed products by semigroups, supervisor: Prof. Sun Young Jang.

Awards and Prizes

- 29.02.2020, Order of Service Merit, President of Republic of Korea.
- 05.11.2014, Award for distinguished academic service of 20 years, President of Korea Maritime University.
- 06.03.2006, Award for development of excellent gender equality measures at Korea Maritime University, Minister of Education and Development of Human Resources, Republic of Korea.

Publications

[1] Peer reviewed journal articles

- J. H. Hong and W. Szymański, The action of the Thompson group F on infinite trees, accepted to Bull. Belg. Math. Soc.
- T. Hayashi, J. H. Hong and W. Szymański, On conjugacy of subalgebras in graph C^* -algebras. II, accepted to Proc. Edinburgh Math. Soc.
- T. Hayashi, J. H. Hong and W. Szymański, On endomorphisms of the Cuntz algebra which preserve the canonical UHF-subalgebra. II, J. Funct. Anal. 272, pp. 759-775, 2017.
- J. H. Hong, M. J. Son and W. Szymański, On cohomology for product systems, Banach J. Math. Anal. 11, pp. 282-294, 2017.
- R. Conti, J. H. Hong and W. Szymański, On conjugacy of MASAs and the outer automorphism group of the Cuntz algebra, Proc. Royal Soc. Edinburgh 145, pp. 269-279, 2015.
- J. H. Hong, N. S. Larsen and W. Szymański, KMS states on Nica-Toeplitz algebras of product systems, Internat. J. Math.

- 23, 1250123, pp. 1-38, 2012.
- R. Conti, J. H. Hong and W. Szymański, The Weyl group of the Cuntz algebra, *Adv. Math.* 231, pp. 3147-3161, 2012.
 - R. Conti, J. H. Hong and W. Szymański, Endomorphisms of graph algebras, *J. Funct. Anal.* 263, pp. 2529-2554, 2012.
 - R. Conti, J. H. Hong and W. Szymański, The restricted Weyl group of the Cuntz algebra and shift endomorphisms, *J. reine angew. Math.* 667, pp. 177-191, 2012.
 - J. H. Hong, A. Skalski and W. Szymański, On invariant MASAs for endomorphisms of the Cuntz algebras, *Indiana Univ. Math. J.* 59, pp. 1873-1892, 2010.
 - J. H. Hong and W. Szymański, Noncommutative balls and mirror quantum spheres, *J. London Math. Soc.* 77, pp. 607-626, 2008.
 - J. H. Hong and W. Szymański, A pseudo-cocycle for the comultiplication on the quantum $SU(2)$ group, *Lett. Math. Phys.* 83, pp. 1-11, 2008.
 - J. H. Hong and W. Szymański, Noncommutative balls and their doubles, *Czechoslovak J. Phys.* 56, pp. 1173-1178, 2006.
 - J. H. Hong and W. Szymański, Analytic rank of graph algebras and quantum spaces, *Bull. London Math. Soc.* 38, pp. 1000-1004, 2006.
 - J. H. Hong, Decomposability of graph C^* -algebras, *Proc. Amer. Math. Soc.* 133, pp. 115-126, 2005.
 - J. H. Hong and W. Szymański, The primitive ideal space of the C^* -algebras of infinite graphs, *J. Math. Soc. Japan* 56, pp. 45-64, 2004.
 - J. H. Hong and W. Szymański, Quantum lens spaces and graph algebras, *Pacific J. Math.* 211, pp. 249-263, 2003.
 - J. H. Hong and W. Szymański, Purely infinite Cuntz-Krieger algebras of directed graphs, *Bull. London Math. Soc.* 35, pp. 689-696, 2003.
 - K. Deicke, J. H. Hong and W. Szymański, Stable rank of graph algebras. Type I graph algebras and their limits, *Indiana Univ. Math. J.* 52, pp. 963-980, 2003.
 - T. Bates, J. H. Hong, I. Raeburn and W. Szymański, The ideal structure of the C^* -algebras of infinite graphs, *Illinois J. Math.* 46, pp. 1159-1176, 2002.
 - J. H. Hong and W. Szymański, Quantum spheres and projective spaces as graph algebras, *Commun. Math. Phys.* 232, pp. 157-188, 2002.
 - J. H. Hong and H. Kosaki, The group of one-dimensional bimodules arising from composition of subfactors, *J. Math. Soc. Japan* 52, pp. 293-333, 2000.
 - J. H. Hong and W. Szymański, On cohomological deformations of bicrossed product Hopf algebras, *Bull. Austral. Math. Soc.* 60, pp. 365-375, 1999.
 - J. H. Hong and W. Szymański, Composition of subfactors and twisted bicrossed products, *J. Operator Theory* 37, pp. 281-302, 1997.
 - J. H. Hong and W. Szymański, On finite subfactors with principal graph, *J. Funct. Anal.* 141, pp. 294-300, 1996.
 - J. H. Hong, Subfactors with principal graph, *Acta Appl. Math.* 40, pp. 255-264, 1995.
 - J. H. Hong, A characterization of crossed products without cohomology, *J. Korean Math. Soc.* 32, pp. 183-193, 1995.

[2] Peer reviewed conference proceedings

- T. Hayashi, J. H. Hong, S. E. Mikkelsen and W. Szymański, On conjugacy of subalgebras of graph C^* -algebras, *Proceedings of the 37 Workshop on Geometric Methods in Physics (Białowieża, July 2018)*, pp. 163-173, *Trends in Mathematics*, Birkhäuser, 2019.
- J. H. Hong, N. S. Larsen and W. Szymański, The Cuntz algebra and C^* -algebras of product systems, in 'Progress in operator algebras, noncommutative geometry, and their applications', *Proceedings of the 4 annual meeting of the European Noncommutative Geometry Network (Bucharest, 2011)*, pp. 97-109, Theta, Bucharest, 2012.
- R. Conti, J. H. Hong and W. Szymański, Endomorphisms of the Cuntz algebras, *Banach Center Publ.* 96, pp. 81-97, 2012.
- R. Conti, J. H. Hong and W. Szymański, Analysis of endomorphisms, *J. Phys. Conf. Ser.* 346, 012005, pp. 1-6, 2012.
- J. H. Hong, The ideal structure of graph algebras, in 'Operator algebras and applications', *Adv. Stud. Pure Math.* 38, *Math. Soc. Japan*, Tokyo, pp. 85-95, 2004.
- J. H. Hong, On the structure of finite depth subfactors, in 'Operator algebras and operator theory', *GARC SNU*, pp. 277282, 1994.

[3] Survey articles

- J. H. Hong, Graph algebras and their broad applications, *Proceedings of the National Institute for Mathematical Sciences* 3, pp. 121-133, 2008.
- J. H. Hong, Jones index theory (in Korean), *Newsletter of the Korean Mathematical Society* 70, pp. 2-7, 2000.