

## PhD theses supervised by Prof. Palle Jorgensen

Prof Palle Jorgensen directed the following PhD theses and is listed as thesis director/thesis supervisor in the records contained within [ProQuest Dissertations & Theses Global](#) and in [Iowa Research Online](#), the University of Iowa's research repository.

### Aarhus University

1981, Klaus Thomsen, *Jordan-morphisms in  $*$ -algebras*

1982, Steen Pedersen, *Spectral theory of commuting self-adjoint partial differential operators*

### University of Iowa

1989, Humberto Eduardo Prado, [Local representations of symmetric spaces and O-S positivity](#)

1992, Xiu-Chi Quan, [Representation of Hopf  \$C^\*\$ -algebras](#)

1993, Anna Marie Paolucci, [A new example of quantum group](#)

1994, Martin Olesen, [Continuous fields of  \$C^\*\$ -algebras with application to quantum physics](#)

1997, Yuan-Ching Huang, [Representations of the Cuntz algebras](#)

1998, Eui-Chai Jeong, [Decomposition of Cuntz algebra representation](#)

1998, Beth Polley Peterson, [Investigating some prewavelets using Ruelle transfer operators and representations on Cuntz algebras](#)

2003, Dylmoon Hidayat, [Continuously translated framelets and wavelets](#)

2003, Paul Andrew Johnson, [Contributions to the hidden subgroup problem](#)

2003, Ilona Yurii Svidersky, [Lifting schemes for wavelets](#)

2004, Dorin Ervin Dutkay, [Wavelet representations](#)

2005, Myung-Sin Song, [Wavelet image compression](#)

2007, Yang Ho Choi, [Curvature arbitrage](#)

2007, Scott Michael Taylor, [Options pricing](#)

2007, Alfredo Teodosio Villanueva, [Symmetries in differential geometry](#)

2008, Sujin Kim, [The role of bases and wavelets in stochastic processes](#)

2009, Le Gui, [Use of operator theory and sub-band filters in the analysis and encoding of signals and images](#)

2010, Da Xu, [Classical groups, integrals and Virasoro constraints](#)

- 2011, Feng Tian, [\*On commutativity of unbounded operators in Hilbert space\*](#)
- 2013, Corissa Marie Goertzen, [\*Operations on infinite x infinite matrices, and their use in dynamics and spectral theory\*](#)
- 2013, Robert Niedzialomski, [\*Extension of positive definite functions\*](#)
- 2014, Ekaterina Sergeevna Nathanson, [\*Path integration with non-positive distributions and applications to the Schrödinger equation\*](#)
- 2016, Gregory J. Ongie, [\*Off-the-grid compressive imaging\*](#)
- 2016, James Edward Tipton, [\*Reproducing Kernel Hilbert spaces and complex dynamics\*](#)
- 2016, Lu Wu, [\*Wavelets on hierarchical trees\*](#)
- 2016, Ze Zhao, [\*Stochastic volatility models with applications in finance\*](#)
- 2017, Gordon J. Aiello, [\*An application of the theory of moments to Euclidean relativistic quantum mechanical scattering\*](#)
- 2017, Tracie L. Michlin, [\*Using wavelet bases to separate scales in quantum field theory\*](#)
- 2019, Aqeeb A. Sabree, [\*Positive definite kernels, harmonic analysis, and boundary spaces: Drury-Arveson theory, and related\*](#)
- 2021, Gohin Shaikh Samad, [\*Euclidean formulation of relativistic quantum theory\*](#)
- 2021, Shrey Sanadhya, [\*Cohomological properties of Borel automorphisms and substitutions on infinite alphabet\*](#)
- 2021, Rajinda Wickrama, [\*Random fields and interest-rate models: applications to pricing of interest-rate derivatives\*](#)