

Bio sketch: Palle Jorgensen, Professor, University of Iowa, USA.

Highest Degree, PhD Mathematics, 1973, Aarhus University, Denmark. Also from Aarhus University, MS 1970, and BA 1968.

Professional and Academic Positions, reverse chronology:

1983-Present: Professor, Department of Mathematics, University of Iowa (NSF grants, Jorgensen, PI).

1982-84: Visiting Associate Professor, Department of Mathematics, *University of Pennsylvania* (on leave from Aarhus first year, and from Iowa second year; NSF grant, R.V. Kadison, PI).

1980-82: Associate Professor, Mathematics Institute, *Aarhus University, Denmark*, on leave from Stanford the first year (Danish Research Council grants).

1977-80: Assistant Professor, Department of Mathematics, *Stanford University* (NSF grant, Jorgensen, PI).

1973-77: Postdoctoral Research Fellow, *University of Pennsylvania*, support from the Danish Natural Science Research Council; partial support from the NSF, Grant MCS 77-02831, 1977, under R.V. Kadison, PI).

A selection of 5 recent publications by Jorgensen. From the *AMS MathSciNet* list: authors (alphabetic), title, journal title (abbreviated), vol, year, and page numbers:

Jorgensen, Palle E. T.; Pearse, Erin P. J. Continuum versus discrete networks, graph Laplacians, and reproducing kernel Hilbert spaces. *J. Math. Anal. Appl.* 469 (2019), no. 2, 765–807.

Jorgensen, Palle E. T.; Song, Myung-Sin. Markov chains and generalized wavelet multiresolutions. *J. Anal.* 26 (2018), no. 2, 259–283.

Jorgensen, Palle; Tian, Feng. Infinite weighted graphs with bounded resistance metric. *Math. Scand.* 123 (2018), no. 1, 5–38.

Jorgensen, Palle E. T. 10 lectures CBMS; Harmonic analysis: Smooth and non-smooth. Published for the Conference Board of the Mathematical Sciences. *CBMS Regional Conference Series in Mathematics, 128*. American Mathematical Society, Providence, RI, 2018. xi+266 pp. ISBN: 978-1-4704-4880-6.

Jorgensen, P. E.; Shah, Firdous A.; Ahmad, O.; Fractional wave packet systems in $L_2(\mathbb{R})$. *J. Math. Phys.* 59(2018), no. 7, 073509, 20 pp.

Other Significant Publications:

Jorgensen, Palle; Tian, Feng. Discrete reproducing kernel Hilbert spaces: sampling and distribution of Dirac-masses. *J. Mach. Learn. Res.* **16** (2015), 3079–3114.

Herr, John E.; Jorgensen, Palle E. T.; Weber, Eric S.; A matrix characterization of boundary representations of positive matrices in the Hardy space. *Frames and harmonic analysis*, 255–270, *Contemp. Math.*, 706, Amer. Math. Soc., Providence, RI, 2018.

Alpay, Daniel; Jorgensen, Palle; Levanony, David. On the equivalence of probability spaces. *J. Theoret. Probab.* **30** (2017), no. 3, 813–841.

Alpay, Daniel; Jorgensen, Palle; Lewkowicz, Izchak. Characterizations of families of rectangular, finite impulse response, para-unitary systems. *J. Appl. Math. Comput.* **54** (2017), no. 1-2, 395–423.

Jorgensen, Palle; Tian, Feng. Nonuniform sampling, reproducing kernels, and the associated Hilbert spaces. *Sampl. Theory Signal Image Process.* **15** (2016), 37–72.

Synergistic.

Jorgensen had 29 PhD students, and he is an editor of several top journals in applied mathematics. Has mentored many undergraduate research students, as well as a number of postdocs. *Memberships*: Amer Math Soc, the New York Academy of Science, the Danish Academy of Science. Jorgensen's research focuses on such areas of mathematics that have found use in physics and in engineering: In engineering, signal and image processing, representation of signals, time-frequency analysis, wavelet representations and algorithms, and bit-quantization. His research papers appeared in state-of-the-art applied mathematics journals. *Keywords & Amer Math Soc classification codes*: Stochastic analysis (37), approximations and expansions, wavelets (41), harmonic analysis (43), machine learning (60).

Sample funding history: NSF funding. Jorgensen, co-PI is, Bi-National grant, US-Israel, which runs out in the spring of 2010-17. Held collaborative NSF grants, one collaborative USA, and separately, a US-Israel grant. In the fall of 2009 he won a three year Collaborative Research Proposal with Prof Dorin Dutkay as co-PI. Jorgensen co-directed the research of several of our VIGRE graduate students. *Citation numbers*. As of Jan 2019, the *MathSciNet* list for Jorgensen has 313 publications, and lists 2620 citations. From *Google Scholar* are: total citations 8710, h-index 38, and i10-index 171.

2018. Jorgensen was main speaker in (a) the NSF funded [Spring Mini Courses - LSU Math Department](https://www.math.lsu.edu/analysis2018/Spring-Mini-Courses_2018) https://www.math.lsu.edu/analysis2018/Spring-Mini-Courses_2018. And in (b) the [CBMS 2018, Featuring Palle Jorgensen - Iowa State University](http://orion.math.iastate.edu/esweber/cbms2018/) orion.math.iastate.edu/esweber/cbms2018/.