

CURRICULUM VITAE

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Born June 2, 1944 in Haarslev, Denmark.
Graduated from Næstved Gymnasium 1963.
Married 1967 to Margrete Berg. Children: Nanna born 1972, Thomas born 1976.
Studies in Mathematics at the University of Copenhagen.
Degrees: Cand.scient. 1968, lic.scient.(ph.d.) 1971, dr. phil. 1976.
Received the gold medal of the University of Copenhagen in 1969
for a paper about Potential Theory.
Studies abroad/research visits: Nancy (1966), Paris (1969-70),
Los Angeles (1974-75), State College, Pennsylvania (1981), Nancy (1989),
Paris (1993,1995), Marseille (1997), Stockholm/Mittag-Leffler (1999),
Sevilla (2002), Wrocław (2007),(2008), Paris (2009),
Stockholm/Mittag-Leffler (2011).
Assist. prof. at the University of Copenhagen 1971, assoc. prof. 1972
and professor since 1978.
Member of The Royal Danish Academy of Sciences and Letters 1982, vice-president 1999-2005.
Member of The Danish Natural Sciences Research Council 1985-1992.
Treasurer of Danish Mathematical Society 1982-88, President 1994-98.
Member of the National committee for mathematics since 1996, chairman 2006.
Member of the editorial board of Journal of Theoretical Probability
(1988-1999) and Expositiones Mathematicae since 1993.
Member of the advisory board of Arab. J. Math. Sciences since 1995.
Published app. 110 scientific papers in international journals,
mainly about potential theory, harmonic analysis, moment problems and
orthogonal polynomials.
Coauthor of 2 monographs.

ADMINISTRATIVE DUTIES

Member of the Study Board 1972-74
Member of the Board 1977-1984, 1993-1995, Chairman 1996-97
Director of the Institute for Mathematical Sciences 1997-2002

INVITED LECTURES

1968: Aarhus
1969: Oberwolfach, Paris 6
1970: Nancy
1971: Nancy
1972: Aarhus
1973: Strasbourg, Tunis, Erlangen
1974: Odense, Paris 6, Rennes, Oberwolfach, UCLA
1975: Stanford, Univ. of Southern California, UCSD
1976: Oberwolfach
1977: Salzburg, Wien
1978: Oberwolfach, Joensuu, Erlangen
1979: Paris 6
1980: Bielefeld, Münster
1981: Penn State, Cath. Univ. Washington DC
1982: Umeå, Eichstätt, Helsingfors, Joensuu, Uppsala, Stockholm
1983: Eichstätt, Lyon, Orsay

1984: Prag, Dresden
 1985: Lyon, Oberwolfach
 1986: Stockholm, Aarhus
 1987: San Antonio, Tucson, Tempe, Luxembourg, Sofia
 1988: Oberwolfach, Eichstätt, Krakow
 1989: Oberwolfach, Nancy, Strasbourg, Luxembourg, Paris 6, Erlangen, Eichstätt
 1990: Erice, Nagoya
 1991: Åbo, Granada
 1992: Maratea, Evian, Lausanne
 1993: Paris 6,7, Toulouse, Lyon, Evry, Chateau de Bonas, Leuven
 1994: Sevilla, Zürich, Lyon, Oberwolfach, Delft
 1995: Toulouse, Paris, Puebla, Lund, Erlangen, Eichstätt
 1996: Maratea, Oberwolfach
 1997: Marseille, Sevilla, Tel Aviv
 1998: Riyadh, Jeddah, Lund, München, Tampa
 1999: Lund, Hong Kong, Patras, Mittag-Leffler Institute Stockholm
 2000: München, Catania, Maratea
 2001: Guatemala City, Rome, Inzell
 2002: Granada, Almería, Sevilla, Madrid, Cuernavaca, Bexbach
 2003: Patras, Coimbra
 2004: Sevilla, Odense, Banff International Research Centre, Irsee, Karthage, Atlanta, Orlando
 2005: Luminy, Paris-Marne-la Vallée, Santander, Munich
 2006: Assiut (Egypt), Protaras (Cyprus), Marseille-Luminy, Castellón, Bonn, Bedlewo (Poland), Sousse
 2007: Lund, Odessa, Voss (Norway), Luminy, Wroclaw, Dresden
 2008: Prague, Leganés (Madrid), Lund
 2009: Lindau, Lille, Université Marne la Vallée, Aarhus, Leuven, Göttingen
 2010: Riyadh, Frederiksberg, Chennai, Orsay
 2011: Hong Kong, Linz, Leganés, Mittag-Leffler Institute Stockholm

CONFERENCES ORGANIZED

French-Danish Colloquium on Potential Theory, May 14-18, 1979 in Copenhagen (Together with Forst and Fuglede)

The Harald Bohr Centenary, April 24-25, 1987 (Together with Lundberg and Fuglede)

Colloquium in honour of Bent Fuglede, May 24-26, 1992

Positivity of polynomials. Conference at Oberwolfach, February 18-23, 2002 (Together with E. Becker and A. Prestel)

Seventh International Symposium on Orthogonal Polynomials, Special Functions and Applications, Copenhagen, August 18-22, 2003 (Together with H.L. Pedersen (KVL) and J.S. Christiansen)

Workshop on Orthogonal Polynomials, Hankel matrices and Jacobi matrices, August 26-28, 2009 at KU-LIFE (Together with Jacob S. Christiansen and Henrik L. Pedersen (KU-LIFE)).

Workshop on Integral Transforms, Positivity and Applications, September 1-3, 2010 at KU-LIFE (Together with Jacob S. Christiansen and Henrik L. Pedersen (KU-LIFE)).

RECENT RESEARCH GRANTS

From the Danish Natural Sciences Research Council:

Project: *Moment problems and Orthogonal Polynomials*, 1994-1997.

Grant under the Program *Geometry and Global Analysis*, 1998-2000, 2001-2003, 2004-2006.

Project: *Complex methods in Dynamical Systems and Special Functions*, 2008-2010. (Joint grant with Bodil Branner, Henrik Laurberg Pedersen and Carsten Lunde Petersen).

Complex methods in Dynamical Systems and Special Functions, 2011-2013. (Joint grant with Christian Henriksen (DTU), Henrik Laurberg Pedersen (KU-LIFE) and Carsten Lunde Petersen (RUC)).

Nato ASI on Orthogonal Polynomials, Columbus, Ohio, May 22-June 3, 1989. Presentation of poster.

Third International Symposium on Orthogonal Polynomials and Their Applications, Erice June 1-9, 1990. *Lecture*: A density index for the Stieltjes moment problem.

VII Simposium sobre polinomios ortogonales i aplicaciones, Granada, September 23-29, 1991.

Second International Conference on functional analysis and approximation theory, Maratea, September 14-19, 1992. *Lecture*: L^2 -approximation with respect to a rotation invariant measure.

International Symposium on Orthogonal Polynomials and their applications, Evian, October 19-23, 1992. *Lecture*: Nevanlinna extremal measures for some orthogonal polynomials related to birth and death processes.

Orthogonality, Moment Problems and Continued Fractions, Delft, October 31-November 4, 1994. *Invited speaker*: Indeterminate Moment Problems and the Theory of Entire Functions.

Colloque Stieltjes, Toulouse March 20-22, 1995. Member of the organizing Committee. *Invited speaker*: Moment Problems and Polynomial Approximation.

Third International Conference on Approximation and optimization in the Caribbean, Puebla, Mexico, October 8-13, 1995. *Lecture*: When does a discrete differential perturbation of a sequence of orthonormal polynomials belong to ℓ^2 .

Third International Conference on functional analysis and approximation theory, Maratea, September 23-27, 1996. *Lecture*: Matrix moment problems and operator theory.

VIII Simposium sobre polinomios ortogonales y aplicaciones, Sevilla, September 22-26, 1997. Member of the International Scientific Committee. *Lecture*: On some indeterminate moment problems for measures on a geometric progression.

Entire functions in modern analysis, Tel Aviv University, December 14-19, 1997. *Lecture*: L^2 -spaces and entire functions.

AMS-SIAM Summer Research Conference on q-series, combinatorics and computer algebra, Mount Holyoke, USA, June 21-25, 1998.

International Workshop on Special Functions, Asymptotics, Harmonic Analysis and Mathematical Physics, City University of Hong Kong, June 21-21, 1999. *Invited speaker*: Families of discrete and absolutely continuous solutions to some indeterminate moment problems.

Fifth International Symposium on orthogonal polynomials, special functions and their applications, Patras, Greece, September 20-24, 1999. *Lecture*: Generalized q-Hermite polynomials.

Workshop on Quantum groups, Bayrischzell, April 27-30, 2000.

The Third World Congress of Nonlinear Analysts, Catania, July 19-26, 2000, *Invited speaker*: Application of the Stieltjes transformation to the Gamma function.

Fourth International Conference on functional analysis and approximation theory, Maratea, September 22-29, 2000. *Lecture*: Pick functions related to the Gamma function.

Sixth International Conference on Approximation and Optimization in the Caribbean, Guatemala City, March 26-30, 2001. *Lecture*: The q -Laguerre moment problem.

Sixth International Symposium on orthogonal polynomials, special functions and applications, Rome, June 18-22, 2001. *Lecture*: On the Stieltjes moment sequence n^{nt} and the stable semigroup of index 1.

Summerschool on Orthogonal polynomials and Harmonic analysis, Inzell, September 17-21, 2001. *Invited lecture*: Infinitely divisible solutions to indeterminate moment problems.

Fourth Workshop on Classical and Quantum integrable systems, Cuernavaca, September 2-6, 2002. *Invited lecture*: q -special functions and some indeterminate moment problems.

Difference equations and special functions, Bexbach, October 26-30, 2002. *Invited lecture*: A transformation from Hausdorff to Stieltjes moment sequences and its relation to the lognormal distribution.

Summerschool on Approximation and Iteration, Coimbra, 14-25 July, 2003. *10 hours of lectures*: Orthogonal Matrix Polynomials.

BIRS Workshop on Orthogonal Polynomials; Interdisciplinary Aspects, Banff, March 27- April 1, 2004. *Invited Lecture*: Orthogonal polynomials associated to positive definite matrices.

Special functions in harmonic analysis and applications, Irsee, July 19-23, 2004. *Invited lecture*: Powers of Stieltjes moment sequences.

International conference 'Polynômes positifs', Marseille-Luminy, March 12-19, 2005. *Invited lecture*: On some new constructions of moment sequences.

Workshop: Special Functions and orthogonal Polynomials. Part of the conference: *Foundations of Computational Mathematics 05*, Santander, June 30- July 2, 2005. *Invited lecture:* A positivity result for Bessel polynomials.

International Conference on Difference Equations, Special Functions and Applications, Munich, July 25-30, 2005. (Member of the International Scientific Committee.) *Plenary Lecture:* Logarithmic order and type of entire functions associated with indeterminate moment problems.

International Conference on Mathematical Analysis and its applications, Assiut, January 3-6, 2006. *Invited lecture:* Growth properties of entire functions associated with indeterminate moment problems.

International Conference in Fourier analysis: Classical problems-current view, Cyprus, May 6-11, 2006. *Invited lecture:* Transformation of moment sequences, fix-point measures and their Mellin transforms.

International Conference: Spaces of holomorphic functions and their operators, Marseille-Luminy, June 5-9, 2006. (Member of the International Scientific Committee.) *Invited lecture:* Logarithmic order and type: A refined scale of growth for entire functions of order zero.

Harmonic analysis and orthogonal expansions, Bedlewo, Poland, September 24-29, 2006. *Invited lecture:* Moment sequences and Mellin transforms.

International Conference on Harmonic Analysis and Applications, Sousse, Tunisia, November 6-11, 2006. *Invited lecture:* Transformations of moment sequences, a fix-point-measure and its Mellin transform.

International Conference: Modern Analysis and Applications, Dedicated to the centenary of Mark Krein. Odessa, Ukraine, April 9-14, 2007. *Plenary lecture:* On the work of Krein related to moment problems.

New trends in complex analysis An international conference on analysis and mathematical physics, Voss, Norway, May 7-12, 2007. *Invited lecture:* Quantum Hilbert matrices and orthogonal polynomials.

9'th International Conference on Orthogonal Polynomials, Special Functions and Applications, Luminy, France July 2-6, 2007. (Member of the International Scientific Committee.) *Plenary lecture:* Quantum Hilbert matrices and orthogonal polynomials.

International Workshop on Orthogonal Polynomials and Approximation Theory, Universidad Carlos III de Madrid, Spain September 8-12, 2008. *Lecture:* Bounds on Turán determinants.

Workshop on Approximation Theory and Signal Analysis, Lindau, Germany March 21-24, 2009. *Lecture:* Fibonacci numbers and moment sequences.

10'th International Conference on Orthogonal Polynomials, Special Functions and Applications, Leuven, Belgium July 20-25, 2009. (Member of the International Scientific Committee.) *Lecture:* The smallest eigenvalue of Hankel matrices.

Sixth International Conference on functional analysis and approximation theory, Maratea, September 24-30, 2009. *Lecture:* Eigenvalues of large Hankel matrices.

Analysis, Geometry and Probability related to group actions, Zakopane, Poland, April 17-24, 2010. *Lecture:* Pick functions related to the volume of the unit ball in n -space.

Functions and Operators 2010, Conference in honour of the 70'th birthday of Professor F.H Szafraniec, Krakow, June 21-25, 2010. *Lecture:* Moment problems and eigenvalues of Hankel matrices.

10th international conference on Probability Theory and Mathematical Statistics, Vilnius, June 28-July 2, 2010. *Lecture:* Some recent results about Student t-distributions.

International Conference on Asymptotics and Special Functions, City University of Hong Kong, May 30-June 3, 2011. *Lecture:* Shell polynomials and indeterminate moment problems: Answer to a question by Ted Chihara.

CAOTA2011: Complex Analysis, Operator Theory, and Approximation. Conference dedicated to the memory of Franz Peherstorfer. Johannes Kepler University, Linz, July 24-29, 2011. *Lecture:* Applications of complex analysis to questions about the volume of the unit ball in Euclidean space.

11'th International Conference on Orthogonal Polynomials, Special Functions and Applications (OPSA). Leganés, Spain, August 29-September 2, 2011. *Lecture:* On generalized Stieltjes-Wigert polynomials.

MASTERS STUDENTS (SPECIALE)

Vagn S. Andersen, 1974, *Dominationsprincippet for foldningskerner*

- Mogens Nørgaard Olesen, 1976, *Repræsentationer af Dirichlet-former*
 Jesper Laub, 1976, *Potentialteoretiske principper for foldningskerner*
 Lars Hebjørn, 1976, *Divisionskegler af potentialkerner*
 Thyge Christensen, 1977, *Potentialteoretiske relative principper for foldningskerner*
 Søren Christian Andersen, 1979, *Uendelig delbarhed af student-fordelingen*
 Klaus Olsbjerg Jensen, 1980, *Uendelige Bernoulli foldninger*
 Lasse Petersen, 1981, *Anvendelser af operator-teori på det flerdimensionale momentproblem*
 Hans Jesper Pihl, 1981, *Anvendelse af momentproblemet på Markovprocesser*
 Marianne Schou Hansen, 1981, *Kædebrøkers anvendelse på Stieltjes momentproblem*
 Grete Ridder Ebbesen, 1983, *Generaliserede Γ -foldninger og Bondesson klassen*
 Jens Erik Wang, 1985, *Momentproblemet med specielt henblik på kompakte mængder i euklidisk rum*
 Henrik L. Pedersen, 1991, *Beskrivelse af indeterminerede Nevanlinna-extremale mål ved en konkret klasse af hele funktioner*
 Mads Smith Hansen, 1994, *Orthogonal polynomials and measures in $M(a, b)$*
 Peter Christiansen, 1994, *Ortogonal polynomier og fødsels- og dødsprocesser*
 Rasmus B. Andersen, 1998, *Det rotationsinvariante momentproblem og dets forbindelse til Stieltjes' momentproblem*
 Jesper Hudlebusch, 2000, *Ortogonal matrix polynomier*
 Jacob Stordal Christiansen, 2000 *The moment problem associated with the Stieltjes-Wigert polynomials*
 Christian Harhoff, 2001 *Fuldstændigt monotone funktioner relateret til Gamma-funktionen*
 Rune Kaasen, 2007 *Unbounded operators and the classical moment problem*
 Helle Bjerg Petersen, 2009 *A non-linear transformation of Hausdorff moment sequences*
 Kaspar Nissen, 2010 *Multi-dimensionelle Momentproblemer*
 Stefano Pane, 2011 *Riemanns Zeta funktion*

PH.D.-STUDENTS

- Torben Maack Bisgaard, 1989, *Moment problems on semigroups* .
 Marco Thill, 1991, *Answers to several questions in the theory of positive definite and related functions* .
 Jacob Stordal Christiansen 2001-2004, *Indeterminate moment problems within the Askey-scheme*.

MONOGRAPHS

1. With G. Forst, *Potential theory on locally compact abelian groups*, *Ergebnisse der Math.* Bd. **87**. Springer, Berlin 1975.
2. With J.P.R. Christensen and P. Ressel, *Harmonic analysis on semigroups. Theory of positive definite and related functions*, *Graduate Texts in Mathematics* vol. **100**. Springer Verlag 1984.

EXPOSITORY WRITINGS, OBITUARIES ETC.

1. *Potential Theory, Copenhagen 1979*, *Lecture Notes in Mathematics* Volume 787, Springer, 1980, *Proceedings of a Colloquium*, May 14–18, 1979. Edited by C. Berg, G. Forst, and B. Fuglede.
2. *Det umulige i cirkelns kvadratur*, *Berlingske Tidendes Kronik* (11.1.1983).
3. *Harald Bohr, 1887-1951*, *Hovedområdet* (April 1987).
4. *Introduction to the almost periodic functions of Bohr*, In: *The Harald Bohr Centenary. Proceedings of a Symposium held in Copenhagen April 24.-25., 1987*. Eds. C. Berg, B. Fuglede. *Mat.-Fys. Medd. Danske Vid. Selsk.* 42:3. Copenhagen 1989..
5. *Riemann's formodning*, *Famøs Marts* 1990.
6. *Trekantens Nipunktscirkel*, *Matematiske Ideer*. En artikelsamling til større skriftlige opgaver, *Matematiklærerforeningen*, 1993, Red: Sven Toft Jensen, Jesper Matthiasen.
7. *Børge Jessen*, *Årbog* 1994, *Københavns Universitet*, 1994, pp. 809–813.
8. *Thøger Bang*, *Oversigt over Selskabets Virksomhed 1997-98*, *Det Kongelige Danske Videnskabernes Selskab*, 1999, pp. 185–191.
9. *Poisson formula for harmonic functions*. (2001), *Encyclopedia of Mathematics*, En sides bidrag til ovennævnte.
10. *Den Internationale Matematikerkongres i Beijing 2002*, *Famøs* (2002).
11. *Proceedings of the Seventh International Conference on Orthogonal Polynomials, Special Functions and Applications, Copenhagen, Denmark, 18–22 August 2003*, *Guest Editors: C. Berg, J.S. Christiansen, H.L. Pedersen*, *J. Comput. Appl. Math.* **178** (2005), 1–538.
12. *Ortogonal polynomier og Hilbert matricen*, *NORMAT* **54 Nr. 3** (2006), 116–133.

13. *Børge Jessen, 19.6.1907–20.3.1993*, Electronic journal for History of Probability and Statistics **5**, no. 1 (2009), www.jehps.net, 15 pages..
14. *Book review of Murray Marshall: Positive Polynomials and Sums of Squares. Mathematical Surveys and Monographs, 146, AMS, Providence, RI, 2008, 187 pp.*, J. Approx. Theory **162** (2010), 236–238.
15. *Book review of Barry Simon: Szegő's Theorem and its Descendants: Spectral Theory for L^2 Perturbations of Orthogonal Polynomials. Princeton University Press, 2010, 720 pp.*, J. Approx. Theory (2011), DOI:10.1016/j.jat.2011.04.006.
16. *Hilbertmatricen*, Famøs **21** (2011), 40–57.

LECTURE NOTES

1. *Udvalgte emner fra potentialteori*, Københavns Universitet, Matematisk Institut, 1971, 144 sider.
2. With G. Forst, *Harmonisk analyse og potentialteori*, Københavns Universitet, Matematisk Institut, 1974, 435 sider.
3. *Momentproblemet*, Københavns Universitet, Matematisk Institut, 1979, 230 sider.
4. With G. Forst, *Uendeligt delbare mål*, Københavns Universitet, Matematisk Institut, 1980, 360 sider.
5. *Lectures on Fourier Analysis and Potential Theory.*, In: Summer School in potential theory, 187–268. Edited by Ilpo Laine and Olli Martio. Department of mathematics and physics report series. University of Joensuu, Joensuu, Finland 1983.
6. *Matematik 2MA, Matematisk Analyse. I: Metriske rum, II: Mål- og integralteori, III: Kompleks funktionsteori*, Københavns Universitet, Matematisk Institut, 1992.
7. *Selected topics from measure theory*, Københavns Universitet, Matematisk Institut, 1992, 83 p..
8. *Matematik 3GT, Topologi*, Københavns Universitet, Matematisk Afdeling, 1997.
9. *Matematik 2KF, Kompleks Funktionsteori*, Københavns Universitet, Matematisk Afdeling, 2001.
10. *Matematik 2KF, Kompleks Funktionsteori*, Københavns Universitet, Matematisk Afdeling, 2002, New revised edition.
11. *The matrix moment problem*, Coimbra Lecture Notes on Orthogonal Polynomials, ISBN: -13:978-1-60021-972-1, Nova Publishers, New York, 2008, pp. 1–57, Lecture notes from a Summer school in Coimbra July 2003 Editors: Ana Pilar Foulquié Moreno and Amílcar José Pinto Lopes Branquinho (Universidade de Aveiro, Aveiro, Portugal).
12. *Complex Analysis*, Københavns Universitet, 2007, 190 pages.
13. *Complex Analysis*, Københavns Universitet, 2010, 192 pages.

RESEARCH PAPERS

1. *Corps convexes et potentiels sphériques*, Mat.–Fys. Medd. Danske Vid. Selsk. **37** No. 6 (1969), 64 pages.
2. *Shephards approximation theorem for convex bodies and the Milman theorem*, Math. Scand. **25** (1969), 19–24.
3. *Abstract Steiner points for convex polytopes*, J. London Math. Soc. (2) **4** (1971), 176–180.
4. *Suites définies négatives et espaces de Dirichlet sur la sphère*, Sémin. Théorie du Potentiel, Paris, Année 1969/70. 18 p. (Two notes in C. R. Acad. Sci. Paris, 271, 488–490, 778–780 contain a summary of this paper).
5. *Quelques propriétés de la topologie fine dans la théorie du potentiel et des processus standard*, Bull. Sci. Math. 2^e série, **95**, (1971), 27–31.
6. *Dirichlet forms on symmetric spaces*, Ann. Institut Fourier, Grenoble **23**¹, (1973), 135–156.
7. *Sur les semi-groupes de convolution*, Publication du Colloque de Théorie du Potentiel et Analyse Harmonique, Strasbourg 1973. Lecture Notes in Math. **404**, 1–26. Springer, Berlin 1974.
8. *On the potential operators associated with a semigroup*, Studia Math. **51** (1974), 109–111.
9. *Transformation de Fourier de mesures de types positif sur un groupe abélien localement compact*, Sémin. Théorie du Potentiel, Paris 1972–74. Lecture Notes in Math. **518**, 37–44. Springer, Berlin 1976.
10. *Semi-groupes de convolution sur les groupes non-moyennables*, Sémin. Théorie du Potentiel, Paris 1972–74. Lecture Notes in Math. **518**, 45–53. Springer, Berlin 1976.
11. With G. Forst, *Non-symmetric translation invariant Dirichlet forms*, Inventiones Math. **21**, (1973), 199–212.
12. With G. Forst, *A remark on the behaviour at infinity of the potential kernel*, Z. Wahrsch. verw. Geb. **31** (1975), 141–145.
13. With J.P.R. Christensen, *On the relation between amenability of locally compact groups and the norms of convolution operators*, Math. Ann. **208** (1974), 149–153.
14. With J.P.R. Christensen, *Sur la norme des opérateurs de convolution*, Inventiones Math. **23** (1974), 173–178.
15. With J. Faraut, *Semi-groupes de Feller invariants sur les espaces homogènes non moyennables*, Math. Zeitschrift **136** (1974), 279–290 (A note in C. R. Acad. Sci., Paris, **277** (1973), 807–808 contains a summary of this paper).
16. *On the support of the measures in a symmetric convolution semigroup*, Math. Zeitschrift **148** (1976), 141–146.
17. *On the relation between Gaussian measures and convolution semigroups of local type*, Math. Scand. **37** (1975), 183–192.
18. *Potential theory on the infinite dimensional torus*, Inventiones Math. **32** (1976), 49–100. (A note in C. R. Acad. Sci., Paris, **280** (1975), 1519–1521 contains a summary of this paper).
19. *On the solutions to elliptic boundary value problems depending on a parameter*, J. Diff. Equations, vol. **24**, no. 3, (1977), 323–328.
20. *On Brownian and Poissonian convolution semigroups on the infinite dimensional torus*, Inventiones Math. **38**, (1977), 227–235.
21. With P. Ressel and J.P.R. Christensen, *Positive definite functions on abelian semigroups*, Math. Ann. **223** (1976), 253–272.

22. With P. Ressel, *Une forme abstraite du théorème de Schoenberg*, Archiv der Math. **30** (1978), 55–61.
23. *Representation of completely convex functions by the extreme-point method*, L'enseignement Math. **23**, (1977), 181–190.
24. *On the existence of condenser potentials*, Nagoya Math. J. **70** (1978), 157–165.
25. *Principes d'aux en théorie du potentiel*, Bull. Soc. Math. France **106** (1978), 365–372.
26. With J. Laub, *The resolvent for a convolution kernel satisfying the domination principle*, Bull. Soc. Math. France **107** (1979), 373–384.
27. *Hunt convolution kernels which are continuous singular with respect to Haar measure*, In: Probability measures on groups. Lecture Notes in Mathematics **706**, 10–21. Springer 1979.
28. With G. Forst, *Infinitely divisible probability measures and potential kernels*, In: Probability measures on groups. Lecture Notes in Mathematics **706**, 22–35. Springer 1979.
29. *The Stieltjes cone is logarithmically convex*, In: Complex Analysis Joensuu 1978. Lecture Notes in Mathematics **747**, 46–54. Springer 1979.
30. With J.P.R. Christensen and C.U. Jensen, *A remark on the multi-dimensional moment problem*, Math. Ann. **243** (1979), 163–169.
31. *Quelques remarques sur le cône de Stieltjes*, In: Séminaire de Théorie du potentiel, Paris n.5. Lecture Notes in Mathematics **814**. Springer 1980.
32. With J.P.R. Christensen, *Density questions in the classical theory of moments*, Ann. Inst. Fourier (Grenoble) **31**, 3 (1981), 99–114.
33. *The Pareto distribution is a generalized Γ -convolution. A new proof*, Scand. Actuarial J. 1981, 117–119.
34. With P.H. Maserick, *Polynomially positive definite sequences*, Math. Ann. **259** (1982), 487–495.
35. With G. Forst, *A convolution equation relating the generalized Γ -convolutions and the Bondesson class*, Scand. Actuarial J. 1982, 171–175.
36. With G. Forst, *Multiply self-decomposable probability measures on \mathbb{R}_+ and \mathbb{Z}_+* , Z. Wahrsch. verw. Gebiete **62** (1983), 147–163.
37. With J.P.R. Christensen, *Exposants critiques dans le problème des moments*, C. R. Acad. Sci. Paris t. **296**, (1983), Série I 661–663.
38. With J.P.R. Christensen, *Suites complètement définies positives, majoration de Schur et le problème des moments de Stieltjes en dimension k* , C. R. Acad. Sci. Paris t. **297** (1983), Série I, 45–48.
39. With P.H. Maserick, *Exponentially bounded positive definite functions*, Illinois J. Math. **28** (1984), 162–179.
40. *Semi-groupes de moments*, Math. Scand. **54** (1984), 177–182.
41. *Fonctions définies négatives et majoration de Schur*, In: Théorie du Potentiel. Lecture Notes in Mathematics vol. **1096**, 69–89. Springer Verlag 1984.
42. *On the preservation of determinacy under convolution*, Proc. Amer. Math. Soc. **93** (1985), 351–357.
43. *The multidimensional moment problem and semigroups*, In: Proceedings of symposia in applied mathematics. Vol. **37**, 110–124. Amer. Math. Soc. 1987.
44. *The cube of a normal distribution is indeterminate*, The Annals of Probability **16**, No. 2 (1988), 910–913.
45. With J.P.R. Christensen and P.H. Maserick, *Sequences with finitely many negative squares*, J. Funct. Anal. **79** (1988), 260–287.
46. *On the uniqueness of minimal definitizing polynomials for a sequence with finitely many negative squares*, In: Harmonic Analysis. Proceedings, Luxembourg 1987, Eds. P. Eymard, J.P. Pier. Lecture Notes in Mathematics vol. **1359**. Springer 1988.
47. With Z. Sasvári, *Functions with a finite number of negative squares on semigroups*, Monatshefte für Mathematik **107** (1989), 9–34.
48. With J. Lützen, *J. Liouville's unpublished work on an integral operator in Potential Theory. A Historical and mathematical analysis*, Expo. Math. **8** (1990), 97–136.
49. *Positive definite and related functions on semigroups*, In: The Analytical and Topological Theory of Semigroups. Trends and Developments. Eds. K.H. Hofmann, J.D. Lawson and J.S. Pym. de Gruyter. Berlin 1990.
50. With B. Fuglede, *Liouville's operator for a disc in space*, Manuscripta math. **67** (1990), 165–185.
51. *Integrals involving Gegenbauer and Hermite polynomials on the imaginary axis*, Aequationes Math. **40** (1990), 83–88.
52. With M. Thill, *Rotation invariant moment problems*, Acta Math. **167** (1991), 207–227.
53. With M. Thill, *A density index for the Stieltjes moment problem*, IMACS Annals on computing and applied mathematics **9** (1991), 185–188, Orthogonal polynomials and their applications. Eds. Claude Brezinski, Laura Gori and André Ronveaux. Proceedings from the Third International Symposium on Orthogonal Polynomials, Erice 1990..
54. With Boyadzhiev, K. and R. deLaubenfels, *Generation of generators of holomorphic semigroups*, J. Austral. Math. Soc. (Series A) **55** (1993), 246–269.
55. With H. Leutwiler, *On the representability of harmonic functions as Newtonian potentials*, Expo. Math. **11** (1993), 369–375.
56. *Markov's theorem revisited*, J. Approx. Theory **78** (1994), 260–275.
57. With H.L. Pedersen, *On the order and type of the entire functions associated with an indeterminate Hamburger moment problem*, Ark. Mat. **32** (1994), 1–11.
58. *L^2 -approximation with respect to rotation invariant measures*, Suppl. Rend. Circ. Mat. Palermo **33** (1993), 211–217.
59. With G. Valent, *Nevanlinna extremal measures for some orthogonal polynomials related to birth and death processes*, J. Comp. Appl. Math. **57** (1995), 29–43.

60. With G. Valent, *The Nevanlinna parametrization for some indeterminate Stieltjes moment problems associated with birth and death processes*, Methods and Appl. Analysis **1** (1994), 169–209.
61. With A.J. Duran, *The index of determinacy for measures and the l^2 -norm of orthonormal polynomials*, Trans. Amer. Math. Soc. **347** (1995), 2795–2811.
62. With H.L. Pedersen, *Nevanlinna matrices of entire functions*, Math. Nachr. **171** (1995), 29–52.
63. *Sur la stabilité de la classe des probabilités déterminées*, Séminaire d'Initiation à l'Analyse (1992-93), Université Pierre et Marie Curie, Paris.
64. With H. L. Pedersen, *Nevanlinna extremal measures and zeros of entire functions*, Linear and Complex Analysis Problem Book 3, Part II, V. P. Havin, N.K. Nikolski (Eds.), Springer, 1994, pp. 89-91, Lecture Notes in Mathematics 1574.
65. With M.E.H. Ismail, *Q-Hermite polynomials and classical orthogonal polynomials*, Can. J. Math. **48** (1996), 43–63.
66. With A.J. Duran, *When does a discrete differential perturbation of a sequence of orthonormal polynomials belong to l^2 ?*, J. Funct. Anal. **136** (1996), 127–153.
67. With A.J. Duran, *Orthogonal polynomials, L^2 -spaces and entire functions*, Math. Scand. **79** (1996), 209–223.
68. *Indeterminate moment problems and the theory of entire functions*, J. Comp. Appl. Math. **65** (1995), 27–55.
69. *Recent results about moment problems*, World Scientific, Singapore 1995, In: Probability Measures on Groups and Related Structures, XI Proceedings Oberwolfach 1994. Ed. H. Heyer.
70. With A.J. Duran, *Measures with finite index of determinacy or a mathematical model for Dr. Jekyll and Mr. Hyde*, Proc. Amer. Math. Soc. **125** (1997), 523–530.
71. *Moment problems and polynomial approximation*, Ann. Fac. Sci. Toulouse Mathématiques (1996), 9–32, Numéro spécial Stieltjes.
72. *On some indeterminate moment problems for measures on a geometric progression*, J. Comput. Appl. Math. **99** (1998), 67–75.
73. *From discrete to absolutely continuous solutions of indeterminate moment problems*, Arab. J. Math. Sc. **4**, no.2 (1998), 1–18.
74. With Y. Chen and M.E.H. Ismail, *Small eigenvalues of large Hankel matrices: The indeterminate case*, Math. Scand. **91** (2002), 67–81.
75. With A. Ruffing, *Generalized q -Hermite polynomials*, Commun. Math. Phys. **223**, 1 (2001), 29–46.
76. With H. L. Pedersen, *A completely monotone function related to the Gamma function*, J. Comput. Appl. Math. **133** (2001), 219–230.
77. *On infinitely divisible solutions to indeterminate moment problems*, Proceedings of the International Workshop “Special Functions”, Hong Kong, 21-25 June, 1999. Ed. C. Dunkl, M. Ismail, R. Wong, World Scientific, Singapore, 2000, pp. 31–41.
78. With H. L. Pedersen, *Pick functions related to the Gamma function*, Rocky Mountain J. Math. **32** no. 2 (2002), 507–525.
79. *A Pick function related to an inequality for the entropy function*, J. Inequalities Pure and Appl. Math. **2** (2001), Issue 2, Article 26.
80. With Horst Alzer, *Some Classes of Completely Monotonic Functions*, Ann. Acad. Sci. Fenn. Math. **27** (2002), 445-460.
81. *Correction to a paper by A.G. Pakes*, J. Austral. Math. Soc. **76** (2004), 67-73.
82. With A.J. Duran, *A transformation from Hausdorff to Stieltjes moment sequences*, Ark. Mat. **42** (2004), 239–257.
83. With A.J. Duran, *Orthogonal Polynomials and Analytic Functions associated to positive definite matrices*, J. Math. Anal. Appl. **315** (2006), 54–67.
84. *On a generalized Gamma convolution related to the q -calculus* (2005), Springer Science+Business Media, Inc., 61–76, In: “Theory and Applications of Special Functions”. A volume dedicated to Mizan Rahman. Ed. by M.E.H. Ismail and Erik Koelink..
85. With H. Alzer, *Some Classes of Completely Monotonic Functions, II*, Ramanujan J. **11** (2006), 225-248.
86. *On powers of Stieltjes moment sequences, I*, J. Theor. Prob. **18** (2005), 871–889.
87. With A. J. Duran, *Some transformations of Hausdorff moment sequences and harmonic numbers*, Canad. J. Math. **57** (2005), 941–960.
88. With H. Alzer and S. Koumandos, *On a conjecture of Clark and Ismail*, J. Approx. Theory **134** (2005), 102–113.
89. *Integral representation of some functions related to the Gamma function*, Mediterr. j. math. **1** (2004), 433-439.
90. With H. L. Pedersen, *The Chen-Rubin conjecture in a continuous setting*, Methods and Applications of Analysis **13** No. 1 (2006), 63–88.
91. *On powers of Stieltjes moment sequences, II*, J. Comput. Appl. Math. **199** (2007), 23–38.
92. With C. Vignat, *Linearization coefficients of Bessel polynomials and properties of Student t -distributions*, Constr. Approx. **27** (2008), 15–32.
93. With H. L. Pedersen and with an appendix by Walter Hayman, *Logarithmic order and type of indeterminate moment problems*, World Scientific Publishing Co. Pte. Ltd., Singapore 2007, 51–79, In: Proceedings of the International Conference “Difference Equations, Special Functions and Orthogonal Polynomials”, Munich July 25-30, 2005. Ed. S. Elaydi et al..
94. With A. J. Durán, *The fixed point for a transformation of Hausdorff moment sequences and iteration of a rational function*, Math. Scand. **103** (2008), 11–39.
95. *Fibonacci numbers and orthogonal polynomials*, Arab J. Math. Sc. **17** (2011), 75–88.

96. *Stieltjes-Pick-Bernstein-Schoenberg and their connection to complete monotonicity*, In: Positive definite functions. From Schoenberg to Space-Time Challenges. Ed. J. Mateu and E. Porcu. Dept. of Mathematics, University Jaume I, Castellon, Spain, 2008.
97. With H. L. Pedersen, *Convexity of the median in the gamma distribution*, Ark. Mat. **46** (2008), 1–6.
98. With J. Ellegaard Andersen, *Quantum Hilbert matrices and orthogonal polynomials*, J. Comput. Appl. Math. **233** (2009), 723–729.
99. With J. Mateu, E. Porcu, *The Dagum family of isotropic correlation functions*, Bernoulli Journal **14 no 4** (2008), 1134–1149.
100. With R. Szwarc, *Bounds on Turán determinants*, J. Approx. Theory **161** (2009), 127–141.
101. With A. J. Durán, *Iteration of the rational function $z - 1/z$ and a Hausdorff moment sequence*, Expo. Math. **26** (2008), 375–385.
102. With C. Vignat, *On some results of Cufaro Petroni about Student t -processes*, J. Phys. A: Math. Theor. **41** (2008), 265004 (10pp).
103. With A. J. Durán, *Fibonacci numbers, Euler’s 2-periodic continued fractions and moment sequences*, The Fibonacci Quarterly **49** (2011), 66–75.
104. With C. Vignat, *On the density of the sum of two independent Student t -random vectors*, Statistics and Probability Letters **80** (2010), 1043–1055; DOI: 10.1016/j.spl.2010.02.019.
105. With R. Szwarc, *The smallest eigenvalue of Hankel matrices*, Constr. Approx. **34** (2011), 107–133; DOI: 10.1007/s00365-010-9109-4.
106. With Maryam Beygmohammadi, *On a fixed point in the metric space of normalized Hausdorff moment sequences*, Rend. Circ. Mat. Palermo, Serie II, Suppl. **82** (2010), 251–257.
107. With H. L. Pedersen, *A one-parameter family of Pick functions defined by the Gamma function and related to the volume of the unit ball in n -space*, Proc. Amer. Math. Soc. **139** (2011), 2121–2132; DOI:10.1090/S0002-9939-2010-10636-6.
108. With C. Vignat, *Derivation of an integral of Boros and Moll via convolution of Student t -densities.*, to appear in Ramanujan Journal DOI:10.1007/s11139-010-9279-5.
109. With J. S. Christiansen, *A question by Chihara about shell polynomials and indeterminate moment problems*, J. Approx. Theory **163** (2011), 1449–1464, DOI:10.1016/j.jat.2011.05.002.
110. With H. L. Pedersen, *A completely monotonic function used in an inequality of Alzer*, Submitted.
111. With H. Bjerg Petersen, *On an iteration leading to a q -analogue of the Digamma function*, Manuscript.