

a. In Print

a-1. Books:

1. (With J. Hilgert) Causal Symmetric Spaces, Geometry and Harmonic Analysis. Perspectives in Mathematics **18**, Academic Press, 1996

a-2. Refereed Articles and Refereed Chapters in Books and Special Volumes:

66. (with B. Rubin) Invariant functions on Grassmanians. *Contemporary math.* **464** (2008), 201–212.
65. (with S. Zheng) Harmonic Analysis Related to Schrödinger Operators. *Contemporary Math.* **464** (2008), 213–230.
64. (with M. Dobrescu) Coxeter groups, wavelets, multiresolution and sampling. In *Frames and operator theory in analysis and signal processing*, 119–135, *Contemp. Math.*, **451**, Amer. Math. Soc., Providence, RI, 2008.
63. (with H. Schlichtkrull) A local Paley-Wiener theorem for compact symmetric spaces. *Adv. Math.* **218** (2008), no. 1, 202–215.
62. (with H. Schlichtkrull) Representation theory, Radon transform and the heat equation on a Riemannian symmetric space. *Group Representations, Ergodic Theory, and Mathematical Physics; A Tribute to George W. Mackey*. In: *Contemp. Math.*, **449** (2008), 315–344.
61. (with H. Schlichtkrull) The Segal-Bargmann transform for the heat equation associated with root systems. *Adv. Math.* **208** (1) (2007), 422–437.
60. (with M. Aristidou and M. Davidson) Laguerre functions on symmetric cones and recursion relations in the real case. *J. Computational and Applied Mathematics.*, **199** (2007), 95–112.
59. (with S. Zheng) Function spaces associated with Schrödinger Operators: The Pöschl-Teller Potential. *J. Fourier Anal. and Appl.* **12** (2006), 653–674
58. (with S. Gindikin and B. Krötz) Holomorphic horospherical transform on non-compactly causal spaces. *IMRN* **2006** (2006), 1–47.
57. (with E. Ournycheva, and B. Rubin) Higher-ranked wavelet transforms, ridgelets transforms, and Radon Transform on the space of matrices. *Applied and Computational Harmonic Analysis* **21** (2006) 182–203.
56. (with M. Davidson and M. Aristidou) Differential Recursion Relations for Laguerre Functions on Symmetric Cones. *Bull. Sci. math.* **130** (2006), 346–263.
55. (with R. Fabec and A. Sengupta) Fock spaces corresponding to positive definite linear transformations. *Math. Scand* **98** (2006) 262–282.

54. (with S. Gindikin and B. Krötz) Horospherical model for the holomorphic discrete series and the horospherical Cauchy transform. *Compositio Mathematica* **142** (2006) 983–1008.
53. (with A. Pasquale) Support properties and Holmgren’s uniqueness theorem for differential operators with hyperplane singularities. *J. Funct. Anal.* **239** (2006), 21–43.
52. (with M. Dobrescu) Wavelets without groups. *Contemp. Math.* **405** (2006), 27–40.
51. (with T. Branson and A. Pasquale) The Paley-Wiener Theorem and the local Huygens’ principle for compact symmetric spaces. *Indagationes* **16** (2005), 393–428. Special volume of *Indagationes* in honor of G. van Dijk.
50. (with T. Branson and A. Pasquale) The Paley-Wiener Theorem for the Jacobi Transform and the Local Huygens’ Principle for Root Systems with Even Multiplicities. *Indagationes* **16** (2005), 429–442. Special volume of *Indagationes* in honor of G. van Dijk.
49. Continuous action of Lie groups on \mathbb{R}^n and frames. *International Journal of Wavelets, Multiresolution and Information Processing* **3** No. 2 (2005), 211–235.
48. (with B. Krötz and R. Stanton) The image of the heat kernel transform on Riemannian symmetric spaces of the noncompact type. **22** (2005), 1307–1329 *International Mathematics Research Notices*.
47. (with S. Gindikin and B. Krötz) Holomorphic H -spherical distribution vectors in principal series representations. *Inventiones Mathematicae* **158** (2004), 643–682.
46. (with S. Gindikin and B. Krötz) Erratum: Holomorphic H -spherical distribution vectors in principal series representations. *Inventiones Mathematicae* **158** (2004), 683–684.
45. (with A. Pasquale) A Paley-Wiener Theorem for the Θ -spherical Transform: The Even Multiplicity case. *Journal de mathématiques pures et appliquées* **83** (2004), 811–954.
44. (with D. Speegle) Wavelets, wavelet sets, and linear actions on \mathbb{R}^n , *Contemporary Mathematics (AMS)* **345**, *Wavelets, Frames and Operator Theory*, Eds: C. Heil, P. Jorgensen, D. Larson, 2004, 253–281.
43. (with A. Pasquale) Paley-Wiener theorems for the Θ -spherical transform: An overview. *Acta Applicandae Mathematicae* **81** (2004), 275–309.
42. (with M. Davidson) The Generalized Segal-Bargmann transform and Special Functions *Acta Applicandae Mathematicae*, **81** (2004), 29–50.
41. (with B. Krötz) The c -function for non-compactly causal symmetric spaces and its relations to harmonic analysis and representation theory Ed. S.G. Gindikin, Lie groups and symmetric spaces, In memory of F.I. Karpelevich. AMS Translations **210**, 171–194 (2003).
40. (with Mark Davidson) Differential recursion relations for Laguerre functions on Hermitian matrices. *Integral Transforms and Special Functions* **14** (2003) 469–484.

39. (with M. Davidson and G. Zhang) Laplace and Segal-Bargmann transforms on Hermitian symmetric spaces and orthogonal polynomials. *J. Funct. Anal.* **204** (2003), 157–195.
38. (with N. B. Andersen and H. Schlichtkrull) On the inversion of the Laplace and Abel Transforms for causal symmetric spaces. *Forum Math.* **15** (2003), 679–699.
37. (with S. Gindikin and B. Krötz) Hardy spaces for non-compactly causal symmetric spaces and the most continuous spectrum. *Math. Ann.* **327** (2003), 25–66.
36. (with R. Fabec) The continuous Wavelet transform and symmetric spaces. *Acta Applicandae Mathematicae* **87(1)** (2003), 261–277.
35. (with B. Krötz) The c -function for non-compactly causal symmetric spaces. *Invent. Math.* **149** (2002) 3, 647–659.
34. (with M. Davidson and G. Zhang) Laguerre polynomials, restriction principle, and holomorphic representations of $SL(2, \mathbb{R})$. *Acta Applicandae Mathematicae* **71** (3) (2002) 261–277.
33. (with A. Pasquale) Regularity properties of generalized Harish-Chandra expansions. In: A. Strasburger et al. (eds.), *Geometry and analysis on finite- and infinite-dimensional Lie groups*, Banach Center Publications 55 (2002), 335–348. Banach Center Publications, 2002.
32. (with F. Betten) Causal Compactification and Hardy Spaces for Spaces of Hermitian Type. *Pacific J. Math.* **200** (2001), 273–312.
31. (with B. Krötz and K-H. Neeb) Spherical Functions on Mixed Symmetric Spaces. *Representation Theory*, **5** (2001), 43–92.
30. (with A. Pasquale) On the meromorphic extension of the spherical functions on noncompactly causal symmetric spaces. *J. Funct. Analysis* **181** (2001), 346–401.
29. (with N. Andersen) A Paley-Wiener Theorem for the Spherical Laplace Transform on Causal Symmetric Spaces of Rank One. *Proceedings of the AMS.* **129** (2001), 173–179.
28. Analytic Continuation in Representation Theory and Harmonic Analysis. In: *Global Analysis and Harmonic Analysis*, ed. J. P. Bourguignon, T. Branson, and O. Hijazi. *Seminares et Congr*, vol 4, (2000), 201–233. Pub.: The French Math. Soc.
27. (with A. Neumann) Minimal and Maximal Semigroups Related to Causal Symmetric Spaces. *Semigroup Forum* **61** (2000) 57–85.
26. (with P. Jorgensen) Unitary representations and Osterwalder-Schrader Duality. Ed. R. S. Doran, V. S. Varadarajan: *The Mathematical Legacy of Harish-Chandra: A Celebration of Representation Theory and Harmonic Analysis*, PSPM, AM, 2000.
25. (with P. Jorgensen) Osterwalder-Schrader Axioms - Wightman Axioms. *Encyclopaedia of Mathematics, Supplement II* Kluwer, Jan. 2000.

24. (With B. Ørsted) Causal Compactification and Hardy Spaces. *Trans. AMS* **351** (1999), 3771-3792.
23. (with T. Branson) Asymptotics of the D'Alembertian with Potential on a Pseudo-Riemannian Manifold. *Proceedings of the AMS* **127** (1999), 1339-1345.
22. (With A. G. Helminck, J. Hilgert, A. Neumann) A Conjugacy Theorem for Symmetric Spaces. *Mathematische Annalen* **313** (1999), 785-791.
21. (with P. Jorgensen) Unitary Representations of Lie Groups with Reflection Symmetry. *J. Funct. Anal.* **158** 26-88 (1998).
20. Open Problems in Harmonic Analysis on Causal Symmetric Spaces. p. 249-270. In: Positivity in Lie Theory; Open Problems. Ed. J. Hilgert, J. D. Lawson, K-H. Neeb, E. B. Vinberg, De Gruyter 1998.
19. (with B. Krötz and K-H. Neeb) Spherical Representations and Mixed Symmetric Spaces. *Representation Theory* **1**, 424-461 (1997).
18. (with T. Branson): Helmholtz Operators and Symmetric Space Duality. *Invent. Math.* **129**, 63-74 (1997).
17. (with B. Ørsted) Generalization of the Bargmann Transform. Proceedings of a "Workshop on Lie Theory and its Applications in Physics" Clausthal, August 1995. Ed. Dobrev, Döbner, Hilgert. World Scientific, 1996
16. (with T. Branson and B. Ørsted): Spectrum Generating Operators, and Intertwining Operators for Representations Induced from a maximal Parabolic Subgroup. *J. Funct. Anal.* **135** (1996) 163-205.
15. (with T. Branson and H. Schlichtkrull): Huyghens' Principle in Riemannian Symmetric Spaces. *Math. Ann.* **301**, 445-462 (1995)
14. (with J. Faraut): Causal Semisimple Symmetric Spaces: The Geometry and Harmonic Analysis. In: Ed. Hofmann, Lawson, Vinberg: "Semigroups in Algebra, Geometry and Analysis", 3-32, 1995.
13. (with J. Faraut and J. Hilgert): Spherical functions on ordered symmetric spaces. *Ann. Inst. Fourier* **44** (1994), 927-966
12. (with T. Branson and H. Schlichtkrull): A bundle valued Radon transform, with applications to invariant wave equations. *Quart. J. Math. Oxford* **45** (1994) 429-461.
11. (with J. Hilgert) Analytic extensions of representations, the solvable case. *Jap. Journ. Math.* **18** (1993) 213-290
10. (with B. Ørsted) Analytic continuation of Flensted-Jensen Representation. *Manuscripta Math.* **74** (1992), 5-23.

9. (with H. Schlichtkrull) Wave propagation on Riemannian symmetric space. *J. Funct. Anal.* **107** (1992) 270-278.
8. (with T. P. Branson) Equipartition of Energy for Waves in Symmetric Spaces. *J. Funct. Anal.* **97** (1991), 403-416.
7. (with J. Hilgert and B. Ørsted) Hardy Spaces on Affine Symmetric Spaces. *J. reine und angew. Math.* **415** (1991), 189-218
6. (with B. Ørsted) The holomorphic discrete series of an affine symmetric space and representations with reproducing kernels, *Trans. Amer. Math. Soc.* **326** (1991), 385-405.
5. Symmetric Spaces of Hermitian Type. *Differential Geometry and Applications* **1** (1991), 195-233
4. (Habilitation) Causal symmetric spaces. *Mathematica Gottingensis* **15** (1990)
3. (with B. Ørsted) The holomorphic discrete series for affine symmetric spaces I. *Journal of Funct. Anal.* **81** (1988), 126-159.
2. Fourier and Poisson transformation associated to a semisimple symmetric space. *Invent. Math.* **90** (1987) 605-629.
1. Die Langlands-Parameter für die Flensted-Jensensche fundamentale Reihe. *Math. Scand.* **55** (1984) 229-244.

a-3. Book Reviews:

3. *Analysis and Probability; Wavelets, Signals, Fractals* by P. E. T. Jorgensen. Graduate Text in Mathematics, Springer, 2006. To appear in: *Journal of Approximation Theory*.
2. *Holomorphy and Convexity in Lie Theory* by K.-H. Neeb, De Gruyter Expositions in Mathematics, 8, Berlin, New York, 2000 Jahresbericht der DMV **104** (2002)
1. *Lie Groups, Convex Cones and Semigroups*, by J. Hilgert, K.H. Hofmann and J.D.Lawson. Oxford Univ. Press. 1989. *Jahresbericht der DMV* **95**, (1992), 5-8

a-4. Non Refereed Chapters in Books and Other Publications:

8. (with T. Quinto) Introduction. In: Ed. G. Olafsson and T. Quinto: The Radon Transform, Inverse Problems, and Tomography. Proceedings of Symposia in Applied Mathematics. AMS.
7. (with H. Feichtinger, P. Jorgensen and D. Larson) Introduction to *Mathematisches Forschungsinstitut Oberwolfach Report No. 10/2004, Mini-Workshop: Wavelets and Frames, February 15th-February 21st, 2004*, Oberwolfach, 2004, 3-5

6. Groups, Wavelets, and Function Spaces. In: *Mathematisches Forschungsinstitut Oberwolfach Report No. 10/2004, Mini-Workshop: Wavelets and Frames, February 15th-February 21st, 2004*, Oberwolfach, 2004, 33–36
5. The c -function for symmetric spaces. A Contribution in *Proceedings of an International Workshop on Lie Theory and its applications in physics*. Ed. H-D. Dobner, V. K. Dobrev, J. Hilgert. World Scientific, 2001
4. Unitary Representations with Reflection Symmetry. In: *Proceedings of an International Workshop on Lie Theory and its applications in physics*. Ed. H-D. Dobner, V. K. Dobrev, J. Hilgert. World Scientific, 1999
3. (with B. Ørsted) Is there an orbit method for affine symmetric spaces? In: *The Orbit Method in Representation Theory, Proceedings of a Conference held in Copenhagen August to September 1988*, Ed. M. Duflo, N.V. Pedersen, M. Vergne. Birkhäuser, 1990.
2. Ph D Thesis, Die Langlands-Klassifizierung, unitäre Darstellungen und die Flensted-Jensensche fundamentale Reihe. Göttingen, 1982.
1. Several publications in *Mathematica Gottingensis*, publication of the *Sonderforschungsbereich Geometry and Analysis* at the University of Göttingen and material posted on my webpage.

b. Accepted for Publication/in Print

2. (with J. Christensen) Examples of Coorbit Spaces for Dual Pairs, *Acta Applicandae. Math.*
1. (with D. Larson and P. Massopust) Three-way tiling sets in two dimensions. *Acta Applicandae Math.*

c. Submitted for Publication

3. (with H. Schlichtkrull) Local Paley-Wiener theorem for distributions on compact symmetric spaces.
2. (with H. Schlichtkrull) Fourier series on compact symmetric spaces.
1. (with J. Wolf) Weyl Group Invariants and Application to Spherical Harmonic Analysis on Symmetric Spaces.