PUBLICATIONS OF J. E. FORNÆSS

1972

- 1. Uniform approximation on manifolds, Math. Scand., 31, 166-170. 1975
- 2. Exhaustion functions and Stein neighborhoods for smooth pseudoconvex domains, Proc. Nat. Acad. Sci., 72, 3279-3280, (with K. Diederich).
- Embedding strictly pseudoconvex domains in convex domains, Amer. J. Math., 98, 529-569.
- 4. A strange bounded smooth domain of holomorphy, Bull. Amer. Math. Soc., 82, 74-76 (with K. Diederich).
- 5. An increasing sequence of Stein manifolds whose limit is on Stein, Mathematische Annalen, 223, 275-277.

- 6. The Mergelyan property for weakly pseudoconvex domains, Manuscripta Math., 22, 199-208, (with A. Nagel).
- 7. Pseudoconvex domains: an example with non-trivial Nebenhulle, Math. Ann., 225, 275-292, (with K. Diederich).
- 8. Complex submanifolds in real-analytic pseudoconvex hypersurfaces, Proc. Nat. Acad. Sci., 74, No. 8, 3126-3127, (with K. Diederich).
- 9. Pseudoconvex domains: bounded strictly plurisubharmonic exhaustion functions, Invent. Math., 39, 129-141, (with K. Diederich).
- 10. Properties of pseudoconvex domains with smooth boundaries, Proc. Sympos. Pure Math., 30, 17-19, (with K. Diederich).
- 11. Polydiscs in complex manifolds, Math. Ann., 227, 145-153, (with E.L. Stout).
- 12. Peak points on weakly pseudoconvex domains, Math. Ann., 277, 173-175.
- 13. Pseudoconvex domains: existence of Stein neighborhoods, Duke Math. J., 44, 641-661, (with K. Diederich).
- 14. Spreading polydiscs on complex manifolds, Amer. J. Math., 99, 993-960, (with E.L. Stout).

15. Two-dimensional counterexamples to generalizations of the Levi problem, Math. Ann., 230, 169-173.

1978

- A construction of peak functions on weakly pseudoconvex domains, Ann. of Math., 107, 555-568, (with E. Bedford).
- 17. Local extension of CR functions from weakly pseudoconvex boundaries, Michigan Journal of Mathematics, 25, 259-262, (with E. Bedford).
- 18. Domains with pseudoconvex neighborhood systems, Invent. Math., 47, 1-27, (with E. Bedford).
- 19. Pseudoconvex domains with real-analytic boundary, Ann. of Math., 107, 371-384, (with K. Diederich).
- Biholomorphic mappings between weakly pseudoconvex domains, Pacific J. Math., 74, 63-65.
- 21. A counterexample for the Levi problem for branched Riemann domains over C , Math. Ann., 234, 275-277.
- 22. Biholomorphic maps of weakly pseudoconvex domains, Duke Math. J., 45, 711-719, (with E. Bedford).
- 23. Strictly pseudohyperbolic domains, Manuscripta Math., 25, 263-278, (with K. Diederich).

- 24. Counterexamples to regularity for the complex Monge-Ampere equation, Invent. Math., 50, 129-134, (with E. Bedford).
- 25. The Levi problem in Stein spaces, Math. Scand., 45, 55-69.
- 26. Plurisubharmonic defining functions, Pacific J. Math., 80, 381-388.
- 27. The Ahlfors estimate, Proc. Amer. Math. Soc., 75, 95-98.
- 28. Continuously varying peaking functions, Pacific J. Math., 83, 341-347, (with S.G. Krantz).
- 29. Proper holomorphic maps onto pseudoconvex domains with real- analytic boundary, Ann. of Math., 110, 575-592, (with K. Diederich).
- 30. Biholomorphic mappings between certain real-analytic domains in C , Math. Ann., 245, 255-272, (with K. Diederich).

- 31. Approximation in pseudoconvex domains, complex approximation, Proceedings, Quebec, Canada, Birkhauser, 18-31, (with E. Bedford).
- 32. The Levi problem on complex spaces with singularities, Math. Ann., 248, 47-72, (with R. Narasimhan).
- 33. Comparison of the Bergman and the Kobayashi metric, Math. Ann., 254, 257-262, (with K. Diederich).
- 34. Recent developments in Several Complex Variables, Ann. of Math. Stud., 100, Princeton University.

- 35. Complex manifolds in pseudoconvex boundaries, Duke Math. J., 48, 279-288, (with E. Bedford).
- 36. Subelliptic estimate for the d-Neuman problem, Duke Math. J., 48, 93-107, (with M. Derridj).
- 37. Biholomorphic mappings between two-dimensional Hartogs domains with realanalytic boundaries, Princeton: Annals of Mathematics Studies, 100, (with K. Diederich).
- 38. A remark on a paper by S.R. Bell, Manuscripta Math., 34, 31-44 (with K. Diederich).
- Increasing sequences of complex manifolds, (with N. Sibony). Math. Ann. 255 (1981), no. 3, 351–360.

- 40. Regular holomorphic images of balls, Annales de L'Institut Fourier, Grenable, 32, 23-36, (with E.L. Stout).
- 41. Thin complements of complete Kahler domains, Math. Ann., 259, 331-341, (with K. Diederich).
- 42. egularizations of plurisubharmonic functions, Math. Ann., 259, 119-223.
- 43. Characterization of global peak sets for A7(D), Math. Ann., 259, 125-130, (with B.S. Henriksen).
- 44. Smooth, but not complex-analytic pluripolar sets, Manuscripta Math., 37, 121-125, (with K. Diederich).
- 45. Proper holomorphic impages of strictly pseudoconvex domains, Math. Ann., 259, 279-286, (with K. Diederich).

- 46. Smooth extendibility of proper holomorphic mappings, Bull. Amer. Math. Soc. (new series), 7, 264-268, (with K. Diederich).
- 47. Boundary regularity of proper holomorphic mappings, Invent. Math., 67, 363-384, (with K. Diederich).
- 48. A result on extension of CR functions, Ann. Inst. Fourier. Grenable, 33, 3, 113-120, (with M. Derridj).
- 49. A smooth curve in C which is not a pluripolar set, Duke Math. J., 49, 931-936, (with K. Diederich).
- A smooth pseudoconvex domain without pseudoconvex exhaustion, Manuscripta Math., 39, 119-123, (with K. Diederich).
 1983
- 51. Riemann domains and envelopes of holomorphy, Duke Math. J., 50, 273-283, (with W.R. Zame).
- 52. Finitely generated ideals in A(=EA), Annales de L'Institut Fourier, Grenoble, 33, 2, 77-85, (with N. Ovrelid).
- 53. Plurisubharmonic functions on smooth domains, Math. Scand., 53, 33-38.
- 54. Holomorphic mappings between pseudoconvex domains, Proc. of the International Congress of Mathematicians, Warszawa, 791-796.
- 55. Proper maps form strongly q-convex domains, Math. Ann., 264, 335-349, (with K. Diederich).

- 56. Peak sets for A (D), Proc. Sympos. Pure Math., 69-75, (with B.S. Henriksen). B
- 57. oundary behavior of the Bergman metric, Proc. Sympos. Pure Math., 41, 59-67, (with K. Diederich and G. Herbert).
- 58. On the nature of thin Complements of complete Kahler metrics, Math. Ann., 268, 475-495, (with K. Diederich).
- 59. Several complex variables, a brief introduction, Proceedings of the 19th Nordic Congress of Mathematicians, Reykjarik, 43-49.

1985

60. Stein neighborhoods for finite preimages of regular domains, Manuscripta Math., 50, 11-27, (with K. Diederich).

- 61. Failure of approximation for function algebras on domain in C , (with D. Barrett).
- Local holomorphic extendibility and non-extendibility of CR-functions on smooth boundaries, Annali Sculoa Normale Superiore-Pisa, Serie IV, 12, 491-502, (with C. Rea).
- 63. Smoothing q-convex functions and vanishing theorems, Invent. Math, 82,=20 291-305, (with K. Diederich).

- 64. Uniform approximation of holomorphic functions on bounded Hartogs domains in C , Math. Z., 191, 61-72, (with D. Barrett).
- 65. Sup-norm estimates for d in C, Ann. of Math., 123, 335-345.
- 66. Proper holomorphic mappings, Math. Scand., 58, 311-322 (with E. Low).
- 67. Smoothing q-convex functions in the singular case, Math. Ann., 273, 665-671, (with K. Diederich).
- 68. Plurisubharmonic functions on ring domains, Lecture notes in Mathematics, 1268, 111-120, (Ed. S. Krantz) (with N. Sibony).
- 69. Sharp Holder estimates for d on ellipsoids, Manuscripta Math., 56, 399-417, (with K. Diederich and J. Wiegerinck). 1987
- 70. Counterexamples in several complex variables, Mathematical Notes, Princeton University Press, (with B. Stensones).
- 71. Runge exhaustions of domains in C , Math. Z., 194, 1-5 (with B. Zame). 1988
- 72. A holomorphic reproducing kernel for Kohn-Nirenberg domains in C , Math. Scand., 62, 44-58, (with J. Wiegerinck).
- 73. Proper holomorphic mappings between real-analytic pseudoconvex domains in C , Math. Ann., 282, 681-700, (with K. Diederich).
- On the smoothness of Levi-foliations, Publ. Matematiques, 32, 171-177, (with D. Barrett).
- 75. Applications holomorphes propres entre des domaines reel-analytiques, C.R. Acad. Sci., 307, 321-324, (with K. Diederich).

- 76. Approximation of plurisubharmonic functions, Arkiv for matematik, 27, 257-272, (with J. Wiegerinck).
- 77. Construction of p.s.h. functions on weakly pseudoconvex domains, Duke Math. J., 58, 633-655, (with N. Sibony).

- 78. Random iterations of rational functions, Ergodic Theory Dynamical Systems, 11, 687-708 (with N. Sibony).
- 79. Existence d'attracteurs etranges pour certaines applications de Henon, C.R. Acad. Sci. Paris, t.313, Serie I, 495-498 (with E. Gavosto). 1992
- 80. Critically finite rational maps on p , Proceedings of the Madison Symposium honoring Walter Rudin upon his retirement, AMS series in Contemporary Mathematics, 245-260, (with N. Sibony)
- 81. Complex Henon Mappings in C and Fatou-Bieberbach domains, Duke J. Math 65, 345-380, (with N. Sibony).
- Existence of Generic Homoclinic tangencies for Henon mappings, Journal of Geometric Analysis, 2, 429-444, (with E. Gavosto).
 1993
- 83. Smooth pseudoconvex domains in C2 for with the Corona Theorem and Lp estimates for dbar fail, Complex Analysis and Geometry, The University series of Mathematics, 209-222, (with N. Sibony).
 - 1994
- 84. A construction of Peak Functions on some finite type domains, American Mathematical Journal 116, 737-755, (with J. McNeal).
- Complex Dynamics in Higher Dimension, I, Asterisque, 222, 201-231, (with N. Sibony).
- 86. Exploding orbits of holomorphic Hamiltonian and of complex contact structures, C.R. Acad. Sci. Paris 319, 553-558, (with S. Grellier).
- 87. Biholomorphisms in C , Journal of Geometric Analysis 4, 539-552, (with K. Diederich and Z. Ye).

1995

88. A 2-sphere in C that cannot be filled in with analytic discs, (with D. Ma), Mathematics Research Notes 1, 17-22.

- 89. Complex Dynamics in Higher Dimension II, (with N. Sibony), in Modern Methods in complex Analysis, Ann Studies, 137, 135-182.
- (with Buzzard, G.) Complete holomorphic vector fields and time-1 maps, Indiana J. Math. 44 (1995), 1175-1182.
- 91. Holomorphic Symplectomorphisms in \mathbb{C}^2 , (with N. Sibony), World Sc. Series, Appl. Anal., Vol 4, Dynamical Systems and Applications, July 1995.
- Oka's inequality for currents and applications, (with N. Sibony), Math. Ann. 301 (1995), 399-419.
- 93. (with Sibony, N.) Classification of recurrent domains for some holomorphic maps, Math. Ann. 301 (1995), 813-820. 1996
- 94. (with Buzzard, G.) Compositional roots of Henon maps, World Sci. (1996), 67-74.
- 95. Exploding orbits of Hamiltonian and contact structures, in lecture notes in pure and applied math, 173, 155-172 (with S. Grellier).
- 96. Holomorphic Symplectomorphisms in \mathbb{C}^{2p} (with N. Sibony), Duke Math J. 82 (1996), 521-533.
- Exploding orbits of holomorphic structures (with S. Grellier) Math. Z. 223 (1996), 155-172.
- 98. Dynamics in Several Complex Variables, CBMS 87.
- 99. An embedding of $\mathbb C$ in $\mathbb C^2$ with hyperbolic complement, (with G. Buzzard), Math. Ann. 306 (1996), 539-546.

100. The Closing Lemma for holomorphic maps (with N. Sibony) Ergod. Th. and Dynam. Sys. 17, (1997) 821-837.

- 101. Fatou and Julia sets for entire mappings in C (with N. Sibony) Math. Ann. accepted July 4, 1997 Math. Ann. 311 (1998), no. 1, 27–40.
- 102. Closing Lemma for holomorphic maps in C (with N. Sibony) Ergod. Th. and Dynam. Sys. 18, (1998), 153-170
- 103. Hyperbolic maps on \mathbb{P}^2 , (with N. Sibony) Math. Ann. 311 (1998), 305-333

- 104. The Cauchy Riemann Equation on Singular Spaces (with E. Gavosto), Duke Journal, 93, (1998) 453-477
- Classification of Degree 2 Polynomial Automorphisms of C3 (with H. Wu) Publicaciones Matematiques, 42 (1998), 195-210
- 106. The Disc Theorem, Mathematische Zeitschrift, 227, 705-709 (1998). Mathematische Zeitschrift, 227 (1998), 705-709 1999
- 107. Support functions for convex domains of finite type (with Klas Diederich) Math.Z. 230 (1999), 145-164.
- 108. Holder estimates on convex domains of finite type. (with Klas Diederich and Bert Fischer) Math. Z. 232 (1999), 43-61.
- 109. Green's functions for irregular quadratic polynomial automorphisms of \mathbb{C}^3 . (with Dan Coman) Michigan Math. Journal 46 (1999), 419-459.
- 110. On thick polynomial hulls without complex structure (with N. Levenberg) (submitted for publication june 1996). Complex analysis in several variables. (edited by Th. M. Rassias. Hadronic Press, Inc., Palm Harbor, Florida, USA, 1999, pp.65-74
- 111. Complex Dynamics in Higher Dimension (with Nessim Sibony) SCV MSRI publication 37 (1999), 273-296.
- 112. Attractors on P² (with Brendan Weickert), Several complex variables (Berkeley, CA, 1995–1996), 297– 307, Cambridge Univ. Press, Cambridge, 1999.
- 113. Tangencies for real and complex Henon maps: an analytic method (with Estela Gavosto) Experimental Math. (1999) 8 no. 3, page 253-2602000
- 114. On the dynamics of rational maps (with Araceli Bonifant) Indiana Journal of Mathematics 49 (2000), 751-778.
- 115. L2 results for dbar in a conic. Operator Theory: Advances and Applications. 114 (2000), 67-72.
- 116. Random iteration in \mathbf{P}^k (with Brendan Weickert) Ergodic Theory Dynam. Systems, Ergodic Theory and Dynamical Systems 20 (2000), no. 4, 1091–1109.
- 117. Infinite dimensional Complex Dynamics, Quasiconjugacies, Localization and Quantum Chaos. Discrete and Continuous Dynamical Systems, Millenium Issue, 6 (2000) 51-60

118. A quantized Henon map. (with Weickert) Discrete and Continuous Dynamical Systems, 6 (2000), 723-740

2001

- 119. Dynamics of P² (Examples), (with Nessim Sibony) Stony Brook Conference on laminations, Contemporary Math 269 (2001), 47-86.
- 120. Some open problems in higher dimensional complex analysis and complex dynamics. (with Sibony) Publicacions Matematiques 45 (2001), 529-647
- 121. The Mandelbrot set for Hénon maps, (with Estela Gavosto).

2002

122. Attractors. (with Bonifant) Complex Geometry, (Gottingen, 2000), 73-84. Springer, Berlin, 2002.

2003

- 123. Local L^2 results for $\overline{\partial}$ on a singular surface, (with Klas Diederich and Sophia Vassiliadou) Math. Scand. 92 (2003), 269-294.
- 124. (with K. Diederich) Lineally convex domains of finite type: Holomorphic Support Functions. Manuscripta Mathematica 112 (2003), 403-431.
- 125. (with N. Sibony) Dynamics of unitary operators Far East Journal of Dynamical Systems, 5(2) (2003), 175-199
- 126. Sustainable Dynamical Systems DCDS A, Volume 9 Number 6, 2003, 1361-1386.
- 127. Hyperbolicity and sustainability of orbits. Journal of the Korean Mathematical Society Vol 40, no.3, May 2003, 409-422. 2004
- 128. Short C^k , Adv. Stud. Pure Math, 42, Math. Society of Japan (2004), 95–108.
- 129. (with Berit Stensones) Stable manifolds of holomorphic hyperbolic maps IJM, 15, 749-758 (2004).
- Real Methods in Complex Dynamics, CIME lecture notes Summer 2002, Martina Franca. Italy. Springer lecture Notes in Mathematics. LNM 1848 (2004), 49–107.

2005

131. Local L^2 results for $\overline{\partial}$: The isolated singularities case. With Sophia Vassiliadou and Nils Ovrelid. International Journal of Mathematics. Vol 16, no. 4 (April 2005) 387–418.

- 132. Semiglobal results for $\overline{\partial}$ on a complex space with arbitrary singularities With Sophia Vassiliadou and Nils Ovrelid. Proceedings of the AMS, 133 (2005), 2377-2386.
- 133. Harmonic currents of finite energy and laminations with Nessim Sibony, GAFA 15 (2005), 962-1003.
- 134. Periodic points of holomorphic twist maps DCDS Series A, 13, November 2005, 1047-1056 Special Issue: Recent Development on Differential Equations and Dynamical Systems: Part I.

2006-

- 135. (with Berit Stensones) Density of Orbits in Complex Dynamics Journal of Ergodic Theory and Dynamical Systems, 26 (2006), 169-178.
- 136. The Julia set of Hénon maps. Mathematische Annalen 334 (2006), 457-464. 2007-
- 137. (with Nessim Sibony) Unique ergodicity of harmonic currents on singular foliations of P². (submitted)
- 138. (with Anne-Katrin Herbig) A note on plurisubharmonic defining functions in \mathbb{C}^2 . Mathematische Zeitschrift 257 vol 4 (2007), 769-781.
- 139. (with Yinxia Wang and Erlend Fornæss Wold) Approximation of partially smooth functions. Science in China, Proceedings of conference in Beijing, 2006 on the occasion of the 80th birthday of Lu Qi Keng. Science in China Series A: Mathematics, Vol 50, 11, 2007.
- 140. (with Yinxia Wang and Erlend Fornæss Wold) Laminated Currents. Ergodic theory and dynamical systems 28 (2008), 1465-1478.
- 141. (with Yinxia Wang and Erlend Fornæss Wold) Laminated Harmonic Currents. accepted.
- 142. (with Nessim Sibony) Riemann surface laminations with singularities. Accepted JGA Henkin volume
- 143. (with Anne-Katrin Herbig) A note on plurisubharmonic defining functions in \mathbb{C}^n Electronic version published 9 July 2008 in Math Ann (No volume number yet)
- 144. (with Lina Lee) Asymptotic behavior of the Kobayashi metric in the normal direction. Accepted Feb 7, 2008, electronic version published march 2008

- 145. Comparison of the Kobayashi-Royden and Sibony metrics on ring domains.
- 146. (with Lina Lee) Kobayashi, Caratheodory and Sibony metric. Paper accepted, "Complex Variables", Dec 12, 2008
- 147. (with Berit Stensønes) Infinite Type Real Analytic plurisubharmonic functions in $\mathbb{C}^2.$