

## BIBLIOGRAPHY

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### REFERENCES

- [1] Peter Ebenfelt. Singularities encountered by the analytic continuation of solutions to Dirichlet's problem. *Complex Variables Theory Appl.*, 20(1-4):75–91, 1992.
- [2] Peter Ebenfelt. Analytic continuation of certain domain functions in quadrature domains and domains bounded by ellipses. *Complex Variables Theory Appl.*, 22(1-2):69–83, 1993.
- [3] Peter Ebenfelt. Some results on the pompeiu problem. *Ann. Acad. Sci. Fenn. Ser. A I Math.*, 18(2):323–341, 1993.
- [4] Peter Ebenfelt. Singularities of the solution to a certain cauchy problem and an application to the pompeiu problem. *Duke Math. J.*, 71(1):119–142, 1993.
- [5] Peter Ebenfelt. Propagation of singularities from singular and infinite points in certain complex-analytic cauchy problems and an application to the pompeiu problem. *Duke Math. J.*, 73(3):561–582, 1994.
- [6] Peter Ebenfelt and Harold S. Shapiro. The mixed Cauchy problem for holomorphic partial differential operators. *J. Anal. Math.*, 65:237–295, 1995.
- [7] Peter Ebenfelt and Harold S. Shapiro. The Cauchy-Kowalevskaya theorem and generalizations. *Comm. Partial Differential Equations*, 20(5-6):939–960, 1995. Erratum: 20(11-12):2221–2222, 1995.
- [8] Peter Ebenfelt. Polynomial modules and a generalized Cauchy problem for systems of holomorphic partial differential operators. *Comm. Partial Differential Equations*, 20(11-12):2129–2151, 1995.
- [9] Peter Ebenfelt and Dmitry Khavinson. On point to point reflection of harmonic functions across real-analytic hypersurfaces in  $\mathbf{R}^n$ . *J. Anal. Math.*, 68:145–182, 1996.
- [10] Peter Ebenfelt. On the unique continuation problem for CR mappings into nonminimal hypersurfaces. *J. Geom. Anal.*, 6(3):385–405 (1997), 1996.
- [11] M. S. Baouendi, P. Ebenfelt, and L. P. Rothschild. Algebraicity of holomorphic mappings between real algebraic sets in  $\mathbf{C}^n$ . *Acta Math.*, 177(2):225–273, 1996.
- [12] Peter Ebenfelt. Holomorphic mappings between real analytic submanifolds in complex space. In *Integral geometry, Radon transforms and complex analysis (Venice, 1996)*, volume 1684 of *Lecture Notes in Math.*, pages 35–69. Springer, Berlin, 1998.
- [13] Peter Ebenfelt. Holomorphic extension of solutions of elliptic partial differential equations and a complex Huygens' principle. *J. London Math. Soc. (2)*, 55(1):87–104, 1997.
- [14] Peter Ebenfelt and Harold S. Shapiro. A quasi-maximum principle for holomorphic solutions of partial differential equations in  $\mathbf{C}^n$ . *J. Funct. Anal.*, 146(1):27–61, 1997.
- [15] Peter Ebenfelt, Dmitry Khavinson, and Harold S. Shapiro. Analytic continuation of Jacobi polynomial expansions. *Indag. Math. (N.S.)*, 8(1):19–31, 1997.
- [16] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. Parametrization of local biholomorphisms of real analytic hypersurfaces. *Asian J. Math.*, 1(1):1–16, 1997.

- [17] Peter Ebenfelt. Nondegeneracy conditions and normal forms for real hypersurfaces in complex space. In *Journées “Équations aux Dérivées Partielles” (Saint-Jean-de-Monts, 1997)*, pages Exp. No. VII, 15. École Polytech., Palaiseau, 1997.
- [18] P. Ebenfelt, D. Khavinson, and H. S. Shapiro. Extending solutions of holomorphic partial differential equations across real hypersurfaces. *J. London Math. Soc. (2)*, 57(2):411–432, 1998.
- [19] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. CR automorphisms of real analytic manifolds in complex space. *Comm. Anal. Geom.*, 6(2):291–315, 1998.
- [20] Peter Ebenfelt. Normal forms and biholomorphic equivalence of real hypersurfaces in  $\mathbb{C}^3$ . *Indiana Univ. Math. J.*, 47(2):311–366, 1998.
- [21] Peter Ebenfelt. New invariant tensors in CR structures and a normal form for real hypersurfaces at a generic Levi degeneracy. *J. Differential Geom.*, 50(2):207–247, 1998.
- [22] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. Rational dependence of smooth and analytic CR mappings on their jets. *Math. Ann.*, 315(2):205–249, 1999.
- [23] M. Salah Baouendi, Peter Ebenfelt, and Linda Preiss Rothschild. *Real submanifolds in complex space and their mappings*, volume 47 of *Princeton Mathematical Series*. Princeton University Press, Princeton, NJ, 1999.
- [24] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. Convergence and finite determination of formal CR mappings. *J. Amer. Math. Soc.*, 13(4):697–723 (electronic), 2000.
- [25] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. Local geometric properties of real submanifolds in complex space. *Bull. Amer. Math. Soc. (N.S.)*, 37(3):309–336 (electronic), 2000.
- [26] Peter Ebenfelt. Uniformly Levi degenerate CR manifolds: the 5-dimensional case. *Duke Math. J.*, 110(1):37–80, 2001. Erratum: 131(3):589–591, 2006.
- [27] Peter Ebenfelt and Xiaojun Huang. On a generalized reflection principle in  $\mathbb{C}^2$ . In *Complex analysis and geometry (Columbus, OH, 1999)*, volume 9 of *Ohio State Univ. Math. Res. Inst. Publ.*, pages 125–140. de Gruyter, Berlin, 2001.
- [28] Peter Ebenfelt. Finite jet determination of holomorphic mappings at the boundary. *Asian J. Math.*, 5(4):637–662, 2001.
- [29] P. Ebenfelt, D. Khavinson, and H. S. Shapiro. A free boundary problem related to single-layer potentials. *Ann. Acad. Sci. Fenn. Math.*, 27(1):21–46, 2002.
- [30] Peter Ebenfelt. On the analyticity of CR mappings between nonminimal hypersurfaces. *Math. Ann.*, 322(3):583–602, 2002.
- [31] M. S. Baouendi, P. Ebenfelt, and Linda Preiss Rothschild. Dynamics of the Segre varieties of a real submanifold in complex space. *J. Algebraic Geom.*, 12(1):81–106, 2003.
- [32] Peter Ebenfelt, Dmitry Khavinson, and Harold S. Shapiro. An inverse problem for the double layer potential. *Comput. Methods Funct. Theory*, 1(2):387–401, 2001.
- [33] P. Ebenfelt. Real analytic hypersurfaces in  $\mathbb{C}^3$ . *Proceedings of the Hayama Symposium In Several Complex Variables*, Hayama, (2001), 10pp.
- [34] P. Ebenfelt, B. Lamel, and D. Zaitsev. Finite jet determination of local analytic CR automorphisms and their parametrization by 2-jets in the finite type case. *Geom. Funct. Anal.*, 13(3):546–573, 2003.
- [35] Peter Ebenfelt, Xiaojun Huang, and Dmitri Zaitsev. The equivalence problem and rigidity for hypersurfaces embedded into hyperquadrics. *Amer. J. Math.*, 127(1):169–191, 2005.
- [36] Peter Ebenfelt and Bernhard Lamel. Finite jet determination of CR embeddings. *J. Geom. Anal.*, 14(2):241–265, 2004.
- [37] Peter Ebenfelt, Xiaojun Huang, and Dmitri Zaitsev. Rigidity of CR-immersions into spheres. *Comm. Anal. Geom.*, 12(3):631–670, 2004.

- [38] P. Ebenfelt, D. Khavinson, and H. S. Shapiro. Algebraic aspects of the Dirichlet problem. In *Quadrature domains and their applications*, volume 156 of *Oper. Theory Adv. Appl.*, pages 151–172. Birkhäuser, Basel, 2005.
- [39] Peter Ebenfelt and Michael Viscardi. On the solution of the Dirichlet problem with rational holomorphic boundary data. *Comput. Methods Funct. Theory*, 5(2):445–457, 2005.
- [40] Peter Ebenfelt and Michael Viscardi. An explicit solution to the Dirichlet problem with rational holomorphic data in terms of a Riemann mapping. *Comput. Methods Funct. Theory*, 7(1):127–140, 2007.
- [41] Peter Ebenfelt and Linda P. Rothschild. Transversality of CR mappings. *Amer. J. Math.*, 128(5):1313–1343, 2006.
- [42] S. R. Bell, P. Ebenfelt, D. Khavinson, and H. S. Shapiro. Algebraicity in the Dirichlet problem in the plane with rational data. *Complex Var. Elliptic Equ.*, 52(2-3):235–244, 2007.
- [43] S. R. Bell, P. Ebenfelt, D. Khavinson, and H. S. Shapiro. On the classical Dirichlet problem in the plane with rational data. *J. Anal. Math.*, 100:157–190, 2006.
- [44] M. S. Baouendi, Peter Ebenfelt, and Linda P. Rothschild. Projection on Segre varieties and determination of holomorphic mappings between real submanifolds. *Sci. China Ser. A*, 49(11):1611–1624, 2006.
- [45] Peter Ebenfelt and Linda P. Rothschild. Analyticity of smooth CR mappings of generic submanifolds. *Asian J. Math.*, 11(2):305–318, 2007.
- [46] Peter Ebenfelt and Linda P. Rothschild. Images of real submanifolds under finite holomorphic mappings. *Comm. Anal. Geom.*, 15(3):491–507, 2007.
- [47] M. S. Baouendi, Peter Ebenfelt, and Linda P. Rothschild. Transversality of holomorphic mappings between real hypersurfaces in different dimensions. *Comm. Anal. Geom.*, 15(3):589–611, 2007.
- [48] Peter Ebenfelt and Hermann Render. On the mixed Cauchy problem with data on singular conics. *J. Lond. Math. Soc. (2)*, 78(1):248–266, 2008.
- [49] Peter Ebenfelt and Hermann Render. The Goursat problem for a generalized Helmholtz operator in the plane. *J. Anal. Math.*, 105:149–167, 2008.
- [50] Peter Ebenfelt, Bernhard Lamel, and Dmitri Zaitsev. Degenerate real hypersurfaces in  $\mathbb{C}^2$  with few automorphisms. *Trans. Amer. Math. Soc.*, 361(6):3241–3267, 2009.
- [51] Peter Ebenfelt and Linda P. Rothschild. New invariants of CR manifolds and a criterion for finite mappings to be diffeomorphic. *Complex Var. Elliptic Equ.*, 54(3-4):409–423, 2009.
- [52] M. S. Baouendi, Peter Ebenfelt, and Xiaojun Huang. Super-rigidity for CR embeddings of real hypersurfaces into hyperquadrics. *Adv. Math.*, 219(5):1427–1445, 2008.
- [53] M. S. Baouendi, P. Ebenfelt, and D. Zaitsev. A Cauchy-Kowalevsky theorem for overdetermined systems of nonlinear partial differential equations and geometric applications. *Comm. Partial Differential Equations*, 34(10-12):1180–1207, 2009.
- [54] M. S. Baouendi, Peter Ebenfelt, and Xiaojun Huang. Holomorphic mappings between hyperquadrics with small signature difference. *Amer. J. Math.*, 133(6):1633–1661, 2011.
- [55] Peter Ebenfelt, Dmitry Khavinson, and Harold S. Shapiro. Two-dimensional shapes and lemniscates. Complex analysis and dynamical systems IV, *Contemp. Math*, 553, American Mathematical Society, 2011.
- [56] Peter Ebenfelt and Duong Ngoc Son. CR transversality of holomorphic mappings between generic submanifolds in complex spaces. *Proc. Amer. Math. Soc.*, 140(5):1729–1738, 2012.
- [57] Peter Ebenfelt and Ravi Shroff. Partial rigidity of CR embeddings of real hypersurfaces into hyperquadrics with small signature difference. *Comm. Analysis. Geom.*, 23:159–190, 2015.
- [58] Peter Ebenfelt and Duong Ngoc Son. Transversality of holomorphic mappings between real hypersurfaces in complex spaces of different dimensions. *Illinois J. Math.*, 56:33–51, 2012.

- [59] Peter Ebenfelt and Andre Minor. On CR embeddings of strictly pseudoconvex hypersurfaces into spheres in low dimensions. *Trans. Amer. Math. Soc.*, 366:5693–5706, 2014.
- [60] Peter Ebenfelt and Duong Ngoc Son. Holomorphic mappings between pseudoellipsoids in different dimensions. *Methods Appl. Anal.*, 21:365–377, 2014.
- [61] Peter Ebenfelt. Partial rigidity of degenerate CR embeddings into spheres. *Adv. Math.*, 239:72–96, 2013.
- [62] Peter Ebenfelt. Proper holomorphic mappings into  $\ell$ -concave quadric domains in projective space. *Indiana Univ. Math. J.*, 64:769–785, 2015. <http://front.math.ucdavis.edu/1311.1833>
- [63] Peter Ebenfelt and Lihua Huang. Uniqueness Results for Extremal Holomorphic Functions in Product Domains. *Comp. Methods Funct. Theory*, 15:1–8, 2015.
- [64] Jonathan Armel and Peter Ebenfelt. Extension of Solutions to Holomorphic Partial Differential Equations. *Comm. Partial Differential Equations*, 39:1770–1779, 2014.
- [65] Peter Ebenfelt. Local Holomorphic Isometries of a Modified Projective Space into a Standard Projective Space; Rational Conformal Factors. *Math. Ann.*, 363(3): 1333-1348, 2015.
- [66] Peter Ebenfelt and Duong Ngoc Son. Umbilical points on three dimensional strictly pseudoconvex CR manifolds. I. Manifolds with  $U(1)$ -action. *Math Ann.*, 382(1-2): 537-560, 2017.
- [67] Peter Ebenfelt. On the HJY Gap Conjecture in CR geometry vs. the SOS Conjecture for polynomials. *Analysis and Geometry in Several Complex Variables. Contemp. Math., Amer. Math. Soc., Providence, RI.*, 681: 125-135, 2017.
- [68] Peter Ebenfelt; Bernhard Lamel; Dmitry Zaitsev. Normal form for infinite type hypersurfaces in  $\mathbb{C}^2$  with nonvanishing Levi form derivative. *Documenta Math.* 22: 165–190, 2017.
- [69] Peter Ebenfelt; Dmitry Zaitsev. A new invariant equation for umbilical points on real hypersurfaces in  $\mathbb{C}^2$  and applications. *Comm. Anal. Geom.*; *accepted*. <https://arxiv.org/abs/1605.08709>
- [70] Peter Ebenfelt. The log term in the Bergman and Szegő kernels in strictly pseudoconvex domains in  $\mathbb{C}^2$ . *Doc. Math.* 23:1659-1676, 2018.
- [71] Peter Ebenfelt; Duong Ngoc Son; Dmitry Zaitsev. A family of compact strictly pseudoconvex hypersurfaces in  $\mathbb{C}^2$  without umbilical points. *Math Res. Lett.* 25:75–84, 2018.
- [72] Peter Ebenfelt. The umbilical locus on the boundary of strictly pseudoconvex domains in  $\mathbb{C}^2$ . *Int. J. Math.* 28, no. 9, 2018.
- [73] Sean N. Curry and Peter Ebenfelt. Bounded strictly pseudoconvex domains in  $\mathbb{C}^2$  with obstruction flat boundary. *submitted*. <https://arxiv.org/abs/1803.09053>
- [74] Sean N. Curry and Peter Ebenfelt. Bounded strictly pseudoconvex domains in  $\mathbb{C}^2$  with obstruction flat boundary II. *submitted*. <https://arxiv.org/abs/1810.05362>

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