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BIBLIOGRAPHY

- (1) "A characterization of Douglas subalgebras," *Acta Math.* **137** (1976) pp. 81-89.
- (2) "On the structure and characterization of some Douglas subalgebras," *Amer. J. Math.* **99** (1977) pp. 530-578.
- (3) "Structure of subalgebras between  $L^\infty$  and  $H^\infty$ ," *Trans. Amer. Math. Soc.* **227** (1977) pp. 319-332.
- (4) (with D.E. Marshall), "Some algebras of bounded analytic functions containing the disk algebra," in "Banach Spaces of Analytic Functions," J. Baker, C. Cleaver and J. Diestel (eds.), *Lecture Notes in Mathematics*, Vol. 604, Springer-Verlag, (1977) pp.12-20.
- (5) (with J.B. Garnett), "Analyticity of functions and subalgebras of  $L^\infty$  containing  $H^\infty$ ," *Proc. Amer. Math. Soc.* **72** (1978) pp. 41-45.
- (6) (with S. Axler and D. Sarason), "Products of Toeplitz operators," *Integral Equations and Operator Theory* **1** (1978) pp. 285-309.
- (7) "Structure of some subalgebra of  $L^\infty$  of the torus," in "Harmonic Analysis in Euclidean Spaces," *Proceedings of Symposium in Pure Mathematics*, Vol. 35, Amer. Math. Soc., (1979) pp. 421-425.
- (8) "Carleson measure on the bi-disc," *Annals of Math.* **109** (1979) pp. 613-620.
- (9) (with R. Fefferman), "On a continuous version of duality of  $H^1$  with BMO on the bidisc," *Annals of Math* **112** (1980) pp. 179-201.
- (10) "A generalized area integral estimate and applications," *Studia Math* **69** (1980) pp. 109-121.
- (11) (with M.M. Schiffer and G. Schober), "On the second variation for univalent functions," *J. Analyses Math* **40** (1981) pp. 203-238.
- (12) (with R. Fefferman), "The Calderón-Zygmund decomposition on product domains," *Amer. J. Math.* **104** (1982) pp. 455-468.
- (13) "Two remarks about  $H^1$  and BMO on the bidisc," in "Proceedings of Conference on Harmonic Analysis in Honor of Antoni Zygmund," Vol. II, Beckner, Calderón, Fefferman and Jones (eds.), Wadsworth, (1983) pp. 373-393.

- (14) (with Z. Ciesielski), "Spline characterization of  $H^1$ ," *Studia Math.* **75**, (1983) pp. 180-192.
- (15) (with R. Fefferman), "Some recent developments in Fourier analysis and  $H^p$  theory on the product domains," *Bull. Amer. Math. Soc.* **12**, No. 1 (1985) pp. 1-43.
- (16) (with M. Wilson and T. Wolff), "Weighted norm inequalities related to Schroedinger operators," *Comm. Math. Helv.* **60** (1985) pp. 217-246.
- (17) (with D. Marshall), "On a sharp inequality concerning the Dirichlet integral," *Amer. J. Math.* (1985) pp. 1015-1033.
- (18) (with T. Carbery and J. Garnett), "Weights and  $L \log L$ ," *Pacific J. Math.* **129** (1985) pp. 33-45.
- (19) (with L. Carleson) "On the existence of an extremal function for an inequality of J. Moser," *Bull. Sci. Math* **110** (1986) pp. 113-127.
- (20) (with B. Berndtsson and K.C. Lin), "Interpolation sequences on the polydisk," *Trans. Am. Math. Soc.* **302** (1987) pp. 161-169.
- (21) (with P.C. Yang), "Prescribing Gaussian curvature on  $S^2$ ," *Acta Math* **159** (1987) pp. 215-259.
- (22) "Extremal function in a sharp form of Sobolov inequality," in *Proceeding of International Congress of Mathematician, I.C.M.* (1986) pp. 715-723.
- (23) (with P.C. Yang), "Conformal deformation of metrics on  $S^2$ ," *J. Diff. Geometry* **27** (1988) pp. 259-296.
- (24) (with P.C. Yang), "Compactness of isospectral conformal metrics on  $S^3$ ," *Comm. Math. Helv.* **64** (1989) pp. 363-374.
- (25) (with P.C. Yang), "The conformal deformation equation and isospectral set of conformal metrics," *Contemporary Mathematics* Vol. 101 (1989) pp. 165-178.
- (26) (with P.C. Yang), "Isospectral Conformal Metrics on 3-manifolds," *J. of AMS* **3** (1990) pp. 117-145.
- (27) (with P.C. Yang), "A perturbation result in prescribing scalar curvature on  $S^n$ ," *Duke J. of Math.* **64** (1991) pp. 27-69.
- (28) (with T. Branson and P.C. Yang), "Estimates and extremal problems for the log-determinant on 4-manifolds," *Communication Math. Physics* Vol. 149, No. 2, (1992) pp. 241-262.
- (29) (with P.C. Yang), "Spectral invariants of conformal metrics," *Proceedings of Satellite Conferences of the International Congress of Math., Kyoto* (1990) pp. 51-60.
- (30) (with M. Gursky and P.C. Yang), "Prescribing scalar curvature on  $S^2$  and  $S^3$ ," *Calculus of Variation* **1** (1993) pp. 205-229.

- (31) (with M. Gursky and T. Wolff), “Lack of compactness in conformal metrics with  $L^{\frac{d}{2}}$  curvature,” *Journal of Geometric Analysis* Vol 4, No. 2, (1994) pp. 143-154.
- (32) (with P.C. Yang), Addendum to “A Perturbation result in prescribing scalar curvature on  $S^n$ ,” *Duke Math. J.* **71** (1993) pp. 333-335.
- (33) “Moser Trudinger inequality and applications to some problems in conformal geometry,” *Non-linear Partial Differential Equations*, Hardt and Wolf (eds.), AMS IAS/Park City Math. Series, Vol 2 pp. 67-125.
- (34) (with P.C. Yang), “Extremal metrics of zeta function determinants on 4-manifolds,” *Annals of Math.* **142** (1995) pp. 171-212.
- (35) (with X-W Xu and P.C. Yang), “Perturbation Results for Prescribing Mean Curvature,” *Math. Annalen*, **310** (1998) pp. 473-496.
- (36) (with M. Gursky and P.C. Yang), “Remarks on a fourth order invariant in conformal geometry,” *Aspects of Mathematics*, edited by N. Mok, Hong Kong University, Proceedings of a conference in Algebra, Geometry and Several Complex Variable, (June, 1996) pp. 353-372.
- (37) (with J. Qing), “Zeta functional determinants on manifolds with boundary,” Research Announcement, *Math. Research Letters*, **3** (1996) pp. 1-17.
- (38) (with J. Qing), “The Zeta functional determinants on manifolds with boundary I-the formula,” *JFA* **147** No. 2 (1997) pp. 327-362.
- (39) (with J. Qing), “The Zeta functional determinants on manifolds with boundary II-Extremum metrics and compactness of isospectral set,” *JFA* **147** No. 2 (1997) pp. 363-399.
- (40) (with P.C. Yang), “Extremal metrics of zeta functional determinants,” *Geometry from the Pacific Rim*, Eds.: Berrick/Loo/Wang, Walter de Gruyter Co., Berlin, New York (1997) pp. 37-57.
- (41) “On zeta functional determinants,” *Centre de Recherche Mathématiques*, CRM Proceedings and Lecture Notes, Vol. 12, (1997); with notes taken by Jie Qing, pp. 25-50.
- (42) (with P.C. Yang), “On uniqueness of solution of a  $n$ -th order differential equation in conformal geometry,” *Math. Research Letters* **4** (1997) pp. 91-102.
- (43) “On Paneitz operator-a fourth order differential operator in conformal geometry,” *Harmonic Analysis and Partial Differential*

- Equations; Essays in honor of Alberto P. Calderón, Editors: M. Christ, C. Kenig and C. Sadosky, Chicago Lectures in Mathematics, (1999), Chapter 8, pp. 127-150.
- (44) (with M.Gursky and P.C. Yang), “Regularity of a fourth order PDE with critical exponent.” *Amer. J. of Math.*, Vol. 121, (1999) pp. 215-257.
- (45) (with L. Wang and P.C. Yang), “Regularity of harmonic maps,” CPAM, L II (1999) pp. 1099-1111.
- (46) (with L. Wang and P.C. Yang), “Regularity of bi-harmonic maps,” CPAM, L II (1999) pp. 113-1137.
- (47) (with P.C. Yang), “On a fourth order curvature invariant,” *Comp. Math.* **237** Spectral Problems in Geometry and Arithmetic, Ed: T. Branson, AMS (1999). 9-28.
- (48) (with J. Qing and P.C. Yang), “On the Chern-Gauss-Bonnet integral for conformal metrics on  $R^4$ ,” *Duke Math. J.*, vol 102, no.3 (2000) pp. 523-544.
- (49) (with J. Qing and P.C. Yang), “Compactification for a class of conformally flat 4-manifold,” *Inventiones Mathematicae*, **142** (2000) pp. 65-93.
- (50) (with P.C. Yang), “Fourth order equations in conformal geometry,” Seminaires et Congres 4 (2000), Global Analysis and Harmonic Analysis J.P. Bourguignon, T. Branson, O. Hijazi (Eds.); pp. 155-165.
- (51) (with W. Chen), “A note on a class of Higher order conformally covariant equations,” *Discreet and Continuous Dynamical systems*, Vol. 7, No. 2, (April 2001), pp. 275-281.
- (52) (with M. Gursky and P. Yang), “An equation of Monge-Ampere type in conformal geometry, and four-manifolds of positive Ricci curvature,” *Annals of Math.*, Vol. 155, No. 3, May (2002) pp. 711-789.
- (53) (with P. Yang), “Partial Differential Equations related to the Gauss-Bonnet-Chern integral on 4-manifolds,” Conformal, Riemannian and Lagrangian Geometry, *AMS*, University lecture series Vol 27. The 2000 Barrett Lectures, pp 1-29.
- (54) “An article in memory of Thomas Wolff”, *Notices AMS*, Vol. 48, No. 5, (2001) pp. 485-486.
- (55) (with J.Qing and P. Yang), “On finiteness of Kleinian groups in general dimension,” *J. fur die Reine und Angewandte Math.*, 571 (2004), pp 1-17.
- (56) (with M. Gursky and P. Yang), “A prior estimate for a class of fully nonlinear equations on 4-manifolds,” *Journal D’Analyse*

- Mathematique, special issue in memory of Thomas Wolff, Vol 87 (2002), pp. 151-186.
- (57) (with C.-C. Chen and C.-S. Lin), “Extremal functions for a mean field equation in two dimension,” Lecture on Partial Differential equations in honor of Louis Nirenberg’s 75th birthday, Editors S.-Y. A. Chang, C.-S. Lin and H.-T. Yau, Chapter 4, International Press, 2003, pp 61-94.
- (58) (with M. Gursky and P. Yang), “Entire solutions of a fully non-linear equation,” Lecture on Partial Differential Equations in honor of Louis Nirenberg’s 75th birthday, Editors S.-Y. A. Chang, C.-S. Lin and H.-T. Yau, Chapter 3, International Press, 2003, pp 43-60.
- (59) (with P. Yang), “The inequality of Moser and Trudinger and applications to conformal geometry,” Comm. Pure and Applied Math., Vol LVI, no. 8, August 2003, pp 1135-1150. Special issue dedicated to the memory of Jurgen K. Moser.
- (60) (with M. Gursky and P. Yang), “A conformally invariant sphere theorem in four dimensions”, Publications de l’IHES, no, 98, 2003. pp. 105-143.
- (61) (with P. Yang), “Non-linear Partial Differential equations in Conformal Geometry”, Proceedings for ICM 2002, Beijing, volume I, pp 189-209.
- (62) (with J. Qing and P. Yang), “On the topology of conformally compact Einstein 4-manifolds”, Noncompact Problems at the intersection of Geometry, Analysis and Topology; Contemporary Math. volume 350, 2004 pp 49-61.
- (63) (with F. Hang and P. Yang), “ On a class of locally conformally flat manifolds”, IMRN 2004, no. 4, pp 185-209.
- (64) ”Nonlinear elliptic equations in conformal geometry”, Nachdiplom lectures in Mathematics, ETH, Zurich, Springer-Birkhäuser, 2004.
- (65) ”Conformal Invariants and Partial Differential Equations”, Colloquium Lecture notes, AMS, Phoenix 2004, Bulletin AMS, 42, No. 3, 2005, pp 365-393.
- (66) (with Z.C. Han and P. Yang), “Classification of singular radial solutions to the  $\sigma_k$  Yamabe equation on annular domains”, JDE, 216 (2005), pp 482-501.
- (67) (with J. Qing and P. Yang), “On the renormalized volumes for conformally compact Einstein manifolds”, to appear in Proceeding conference in Geometric Analysis, Moscow 2005.

- (68) (with M. Gursky and P. Yang), "Conformal invariants with respect to a measure", PNAS, 103, no. 8, Feb., 2006, pp 2535-2540.
- (69) (with J. Qing and P. Yang), "On a conformal gap and finiteness theorem for a class of four manifolds", GAFA, vol 17, 2007, pp 404-434.
- (70) (with M. Gursky and P. Yang) "Conformal invariants associated with a measure: pointwise invariant.", preprint 2006, submitted for publication.
- (71) (with F. Hang) "Integral Identities and Minkowski type inequalities involving Schouten tensor", IMRN, 2007, to appear.
- (72) (with Szu-yu Sophie Chen) "On a fully non-linear elliptic PDE in conformal geometry", to appear in Journal Matematicas: Enseñanza Universitaria, special issue for the Proceedings of the conference in memory of Jose Fernando Escobar, 2006.
- (73) (with Jie Qing and Paul Yang) "Some advancements in conformal geometry", to appear in SIGMA, (Symmetry, Integrability and Geometry: Methods and Applications) special volume in memory of Thomas Branson.
- (74) (with Hao Fang) "On a new class of conformal variational functional", preprint 2007, submitted for publication.
- (75) (with M. Gursky and P. Yang) "Conformal invariants associated with a measure: part II, Conformally covariant operators", preprint 2007, submitted for publication.