

- [1] Yau, Shing-tung: On the fundamental group of compact manifolds of non-positive curvature. *Ann. of Math. (2)* 93 (1971), 579–585.
- [2] Yau, Shing Tung: Compact flat Riemannian manifolds. *J. Differential Geometry* 6 (1971), 395–402.
- [3] Yau, Shing Tung: ON THE FUNDAMENTAL GROUP OF COMPACT MANIFOLDS OF NON-POSITIVE CURVATURE. ProQuest LLC, Ann Arbor, MI, 1971, (no paging).
- [4] Lawson, H. Blaine, Jr.; Yau, Shing Tung: Compact manifolds of nonpositive curvature. *J. Differential Geometry* 7 (1972), 211–228.
- [5] Bourguignon, Jean-Pierre; Yau, Shing Tung: Sur les métriques riemanniennes à courbure de Ricci nulle sur le quotient d'une surface  $K$ . *C. R. Acad. Sci. Paris Sér. A-B* 277 (1973), A1175–A1177.
- [6] Yau, S. T.: Remarks on conformal transformations. *J. Differential Geometry* 8 (1973), 369–381.
- [7] Yau, Shing Tung: Some global theorems on non-complete surfaces. *Comment. Math. Helv.* 48 (1973), 177–187.
- [8] Yau, Shing Tung: Non-existence of continuous convex functions on certain Riemannian manifolds. *Math. Ann.* 207 (1974), 269–270.
- [9] Yau, Shing Tung: Curvature preserving diffeomorphisms. *Ann. of Math. (2)* 100 (1974), 121–130.
- [10] Lawson, H. Blaine, Jr.; Yau, Shing Tung: Scalar curvature, non-abelian group actions, and the degree of symmetry of exotic spheres. *Comment. Math. Helv.* 49 (1974), 232–244.
- [11] Yau, Shing Tung: Submanifolds with constant mean curvature. I, II. *Amer. J. Math.* 96 (1974), 346–366; *ibid.* 97 (1975), 76–100.
- [12] Yau, Shing Tung: On the curvature of compact Hermitian manifolds. *Invent. Math.* 25 (1974), 213–239.
- [13] Yau, Shing Tung: Intrinsic measures of compact complex manifolds. *Math. Ann.* 212 (1975), 317–329.
- [14] Cheng, S. Y.; Yau, S. T.: Differential equations on Riemannian manifolds and their geometric applications. *Comm. Pure Appl. Math.* 28 (1975), no. 3, 333–354.
- [15] Yau, Shing Tung: Isoperimetric constants and the first eigenvalue of a compact Riemannian manifold. *Ann. Sci. École Norm. Sup. (4)* 8 (1975), no. 4, 487–507.
- [16] Schoen, R.; Simon, L.; Yau, S. T.: Curvature estimates for minimal hypersurfaces. *Acta Math.* 134 (1975), no. 3-4, 275–288.
- [17] Yau, Shing Tung: Harmonic functions on complete Riemannian manifolds. *Comm. Pure Appl. Math.* 28 (1975), 201–228.

- [18] Yau, Shing Tung: Parallelizable manifolds without complex structure. *Topology* 15 (1976), no. 1, 51–53.
- [19] Siu, Yum Tong; Yau, Shing Tung: On the structure of complete simply-connected Kähler manifolds with nonpositive curvature. *Proc. Nat. Acad. Sci. U.S.A.* 73 (1976), no. 4, 1008.
- [20] Yau, Shing Tung: Some function-theoretic properties of complete Riemannian manifold and their applications to geometry. *Indiana Univ. Math. J.* 25 (1976), no. 7, 659–670.
- [21] Cheng, Shiu Yuen; Yau, Shing Tung: On the regularity of the solution of the  $n$ -dimensional Minkowski problem. *Comm. Pure Appl. Math.* 29 (1976), no. 5, 495–516.
- [22] Cheng, Shiu Yuen; Yau, Shing Tung: Maximal space-like hypersurfaces in the Lorentz-Minkowski spaces. *Ann. of Math. (2)* 104 (1976), no. 3, 407–419.
- [23] Schoen, Richard; Yau, Shing Tung: Harmonic maps and the topology of stable hypersurfaces and manifolds with non-negative Ricci curvature. *Comment. Math. Helv.* 51 (1976), no. 3, 333–341.
- [24] Cheng, Shiu Yuen; Yau, Shing Tung: Hypersurfaces with constant scalar curvature. *Math. Ann.* 225 (1977), no. 3, 195–204.
- [25] Siu, Yum Tong; Yau, Shing Tung: Complete Kähler manifolds with nonpositive curvature of faster than quadratic decay. *Ann. of Math. (2)* 105 (1977), no. 2, 225–264.
- [26] Cheng, Shiu Yuen; Yau, Shing Tung: On the regularity of the Monge-Ampère equation  $\det(\partial^2 u / \partial x_i \partial \bar{x}_j) = F(x, u)$ . *Comm. Pure Appl. Math.* 30 (1977), no. 1, 41–68.
- [27] Yau, Shing Tung: Remarks on the group of isometries of a Riemannian manifold. *Topology* 16 (1977), no. 3, 239–247.
- [28] Yau, Shing Tung: Calabi's conjecture and some new results in algebraic geometry. *Proc. Nat. Acad. Sci. U.S.A.* 74 (1977), no. 5, 1798–1799.
- [29] Schoen, Richard; Yau, Shing Tung: On univalent harmonic maps between surfaces. *Invent. Math.* 44 (1978), no. 3, 265–278.
- [30] Yau, Shing Tung: On the Ricci curvature of a compact Kähler manifold and the complex Monge-Ampère equation. I. *Comm. Pure Appl. Math.* 31 (1978), no. 3, 339–411.
- [31] Yau, Shing Tung: A general Schwarz lemma for Kähler manifolds. *Amer. J. Math.* 100 (1978), no. 1, 197–203.
- [32] Schoen, Richard; Yau, Shing Tung: Incompressible minimal surfaces, three-dimensional manifolds with nonnegative scalar curvature, and the positive mass conjecture in general relativity. *Proc. Nat. Acad. Sci. U.S.A.* 75 (1978), no. 6, 2567.
- [33] Yau, Shing Tung: On the heat kernel of a complete Riemannian manifold. *J. Math. Pures Appl.* (9) 57 (1978), no. 2, 191–201.

- [34] Schoen, Richard M.; Yau, Shing Tung: Complete manifolds with nonnegative scalar curvature and the positive action conjecture in general relativity. *Proc. Nat. Acad. Sci. U.S.A.* 76 (1979), no. 3, 1024–1025.
- [35] Schoen, Richard; Yau, Shing Tung: On the proof of the positive mass conjecture in general relativity. *Comm. Math. Phys.* 65 (1979), no. 1, 45–76.
- [36] Siu, Yum Tong; Yau, Shing Tung: Errata to the paper: "Complete Kähler manifolds with nonpositive curvature of faster than quadratic decay" [*Ann. of Math. (2)* 105 (1977), no. 2, 225–264; MR 55 \#10719]. *Ann. of Math. (2)* 109 (1979), no. 3, 621–623.
- [37] Yau, Shing Tung: Harmonic maps between Riemannian manifolds.. *Lecture Notes in Pure and Appl. Math.*, 48, Dekker, New York, 1979, pp. 307–311,
- [38] Schoen, R.; Yau, S. T.: On the structure of manifolds with positive scalar curvature. *Manuscripta Math.* 28 (1979), no. 1-3, 159–183.
- [39] Schoen, R.; Yau, Shing Tung: Existence of incompressible minimal surfaces and the topology of three-dimensional manifolds with nonnegative scalar curvature. *Ann. of Math. (2)* 110 (1979), no. 1, 127–142.
- [40] Schoen, Richard; Yau, Shing Tung: Positivity of the total mass of a general space-time. *Phys. Rev. Lett.* 43 (1979), no. 20, 1457–1459.
- [41] Schoen, Richard; Yau, Shing Tung: Compact group actions and the topology of manifolds with nonpositive curvature. *Topology* 18 (1979), no. 4, 361–380.
- [42] Meeks, William H., III; Yau, Shing Tung: The classical Plateau problem and the topology of 3-manifolds.. North-Holland, Amsterdam-New York, 1979, pp. 101–102,
- [43] Yau, Shing Tung: The role of partial differential equations in differential geometry.. *Acad. Sci. Fennica, Helsinki*, 1980, pp. 237–250,
- [44] Li, Peter; Yau, Shing Tung: Estimates of eigenvalues of a compact Riemannian manifold.. *Proc. Sympos. Pure Math.*, XXXVI, Amer. Math. Soc., Providence, R.I., 1980, pp. 205–239,
- [45] Schoen, R.; Wolpert, S.; Yau, S. T.: Geometric bounds on the low eigenvalues of a compact surface.. *Proc. Sympos. Pure Math.*, XXXVI, Amer. Math. Soc., Providence, R.I., 1980, pp. 279–285,
- [46] Cheng, Shiu Yuen; Yau, Shing Tung: On the existence of a complete Kähler metric on noncompact complex manifolds and the regularity of Fefferman's equation. *Comm. Pure Appl. Math.* 33 (1980), no. 4, 507–544.
- [47] Yang, Paul C.; Yau, Shing Tung: Eigenvalues of the Laplacian of compact Riemann surfaces and minimal submanifolds. *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)* 7 (1980), no. 1, 55–63.
- [48] Siu, Yum Tong; Yau, Shing Tung: Compact Kähler manifolds of positive bisectional curvature. *Invent. Math.* 59 (1980), no. 2, 189–204.
- [49] Meeks, William H., III; Yau, Shing Tung: Topology of three-dimensional manifolds and the embedding problems in minimal surface theory. *Ann. of Math. (2)* 112 (1980), no. 3, 441–484.

- [50] Yau, Shing Tung: The total mass and the topology of an asymptotically flat space-time.. Springer, New York-Berlin, 1980, pp. 255–259,
- [51] Schoen, Richard; Yau, Shing Tung: The energy and the linear momentum of space-times in general relativity. *Comm. Math. Phys.* 79 (1981), no. 1, 47–51.
- [52] Schoen, Richard; Yau, Shing Tung: Proof of the positive mass theorem. II. *Comm. Math. Phys.* 79 (1981), no. 2, 231–260.
- [53] Cheeger, Jeff; Yau, Shing Tung: A lower bound for the heat kernel. *Comm. Pure Appl. Math.* 34 (1981), no. 4, 465–480.
- [54] Cheng, Siu Yuen; Li, Peter; Yau, Shing Tung: On the upper estimate of the heat kernel of a complete Riemannian manifold. *Amer. J. Math.* 103 (1981), no. 5, 1021–1063.
- [55] Meeks, William H., III; Yau, Shing Tung: The equivariant Dehn's lemma and loop theorem. *Comment. Math. Helv.* 56 (1981), no. 2, 225–239.
- [56] Mok, Ngaiming; Siu, Yum Tong; Yau, Shing Tung: The Poincaré-Lelong equation on complete Kähler manifolds. *Compositio Math.* 44 (1981), no. 1-3, 183–218.
- [57] Schoen, Richard; Yau, Shing Tung: Proof that the Bondi mass is positive. *Phys. Rev. Lett.* 48 (1982), no. 6, 369–371.
- [58] Meeks, William W., III; Yau, Shing Tung: The existence of embedded minimal surfaces and the problem of uniqueness. *Math. Z.* 179 (1982), no. 2, 151–168.
- [59] Yau, Shing Tung: Survey on partial differential equations in differential geometry.. *Ann. of Math. Stud.*, 102, Princeton Univ. Press, Princeton, N.J., 1982, pp. 3–71,
- [60] Schoen, Richard; Yau, Shing Tung: Complete three-dimensional manifolds with positive Ricci curvature and scalar curvature.. *Ann. of Math. Stud.*, 102, Princeton Univ. Press, Princeton, N.J., 1982, pp. 209–228,
- [61] Siu, Yum Tong; Yau, Shing Tung: Compactification of negatively curved complete Kähler manifolds of finite volume.. *Ann. of Math. Stud.*, 102, Princeton Univ. Press, Princeton, N.J., 1982, pp. 363–380,
- [62] Yau, Shing Tung: Problem section.. *Ann. of Math. Stud.*, 102, Princeton Univ. Press, Princeton, N.J., 1982, pp. 669–706,
- [63] Yau, Shing Tung: Erratum: "Some function-theoretic properties of complete Riemannian manifold and their applications to geometry" [*Indiana Univ. Math. J.* 25 (1976), no. 7, 659–670; MR 54 #5502]. *Indiana Univ. Math. J.* 31 (1982), no. 4, 607.
- [64] Meeks, William H., III; Yau, Shing Tung: The classical Plateau problem and the topology of three-dimensional manifolds. The embedding of the solution given by Douglas-Morrey and an analytic proof of Dehn's lemma. *Topology* 21 (1982), no. 4, 409–442.

- [65] Schoen, Richard; Yau, Shing Tung: Corrections to: "Compact group actions and the topology of manifolds with nonpositive curvature" [Topology 18 (1979), no. 4, 361–380; MR 81a:53044]. Topology 21 (1982), no. 4, 483.
- [66] Li, Peter; Yau, Shing Tung: A new conformal invariant and its applications to the Willmore conjecture and the first eigenvalue of compact surfaces. Invent. Math. 69 (1982), no. 2, 269–291.
- [67] Meeks, William, III; Simon, Leon; Yau, Shing Tung: Embedded minimal surfaces, exotic spheres, and manifolds with positive Ricci curvature. Ann. of Math. (2) 116 (1982), no. 3, 621–659.
- [68] Cheng, Shiu Yuen; Yau, Shing-Tung: The real Monge-Ampère equation and affine flat structures. Science Press Beijing, Beijing, 1982, 339–370. ISBN: 0-677-16420-3
- [69] Freedman, Michael; Yau, Shing Tung: Homotopically trivial symmetries of Haken manifolds are toral. Topology 22 (1983), no. 2, 179–189.
- [70] Jost, Jürgen; Yau, Shing Tung: Harmonic mappings and Kähler manifolds. Math. Ann. 262 (1983), no. 2, 145–166.
- [71] Li, Peter; Yau, Shing Tung: On the Schrödinger equation and the eigenvalue problem. Comm. Math. Phys. 88 (1983), no. 3, 309–318.
- [72] Schoen, Richard; Yau, S. T.: The existence of a black hole due to condensation of matter. Comm. Math. Phys. 90 (1983), no. 4, 575–579.
- [73] Mok, Ngaiming; Yau, Shing-Tung: Completeness of the Kähler-Einstein metric on bounded domains and the characterization of domains of holomorphy by curvature conditions. Proc. Sympos. Pure Math., 39 American Mathematical Society, Providence, RI, 1983, 41–59. ISBN: 0-8218-1448-6
- [74] Yau, Shing-Tung: A survey on Kähler-Einstein metrics. Proc. Sympos. Pure Math., 41 American Mathematical Society, Providence, RI, 1984, 285–289. ISBN: 0-8218-1446-X
- [75] Yau, Shing-Tung: Minimal surfaces and their role in differential geometry. Ellis Horwood Ser. Math. Appl. Ellis Horwood Ltd., Chichester, 1984, 99–103. ISBN: 0-85312-699-2
- [76] Yau, Shing-Tung; Meeks, William H., III: The equivariant loop theorem for three-dimensional manifolds and a review of the existence theorems for minimal surfaces. Pure Appl. Math., 112 Academic Press, Inc., Orlando, FL, 1984, 153–163. ISBN: 0-12-506980-4
- [77] Meeks, William H., III; Yau, Shing-Tung: Group actions on  $\mathbb{R}^3$ . Pure Appl. Math., 112 Academic Press, Inc., Orlando, FL, 1984, 167–179. ISBN: 0-12-506980-4
- [78] Cheng, Shiu Yuen; Li, Peter; Yau, Shing-Tung: Heat equations on minimal submanifolds and their applications. Amer. J. Math. 106 (1984), no. 5, 1033–1065.
- [79] Li, Peter; Schoen, Richard; Yau, Shing-Tung: On the isoperimetric inequality for minimal surfaces. Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4) 11 (1984), no. 2, 237–244.
- [80] Jost, Jürgen; Yau, Shing-Tung: A strong rigidity theorem for a certain class of compact complex analytic surfaces. Math. Ann. 271 (1985), no. 1, 143–152.

- [81] Yau, Shing-Tung: On the structure of complete manifolds with positive scalar curvature. Springer-Verlag, Berlin, 1985, 219–222. ISBN: 3-540-13543-X
- [82] Singer, I. M.; Wong, Bun; Yau, Shing-Tung; Yau, Stephen S.-T.: An estimate of the gap of the first two eigenvalues in the Schrödinger operator. *Ann. Scuola Norm. Sup. Pisa Cl. Sci. (4)* 12 (1985), no. 2, 319–333.
- [83] Yau, Shing-Tung: Compact three-dimensional Kähler manifolds with zero Ricci curvature. World Scientific Publishing Co., Singapore, 1985, 395–406. ISBN: 9971-978-69-5
- [84] Cheng, S. Y.; Yau, S.-T.: Inequality between Chern numbers of singular Kähler surfaces and characterization of orbit space of discrete group of  $SU(2,1)$ . *Contemp. Math.*, 49 American Mathematical Society, Providence, RI, 1986, 31–44. ISBN: 0-8218-5049-0
- [85] Li, Peter; Yau, Shing-Tung: On the parabolic kernel of the Schrödinger operator. *Acta Math.* 156 (1986), no. 3-4, 153–201.
- [86] Gao, L. Zhiyong; Yau, S.-T.: The existence of negatively Ricci curved metrics on three-manifolds. *Invent. Math.* 85 (1986), no. 3, 637–652.
- [87] Jost, J.; Yau, S.-T.: The strong rigidity of locally symmetric complex manifolds of rank one and finite volume. *Math. Ann.* 275 (1986), no. 2, 291–304.
- [88] Cheng, Shiu Yuen; Yau, Shing-Tung: Complete affine hypersurfaces. I. The completeness of affine metrics. *Comm. Pure Appl. Math.* 39 (1986), no. 6, 839–866.
- [89] Uhlenbeck, K.; Yau, S.-T.: On the existence of Hermitian-Yang-Mills connections in stable vector bundles. *Comm. Pure Appl. Math.* 39 (1986), S257–S293.
- [90] Yau, Shing-Tung: Nonlinear analysis in geometry. *Monogr. Enseign. Math.*, 33[Monographs of L'Enseignement Mathématique] Sér. Conf. Union Math. Internat., 8[Lecture Series of the International Mathematics Union] L'Enseignement Mathématique, Geneva, 1986, 54 pp.
- [91] Yau, Shing-Tung: A survey on the interaction between mathematical physics and geometry. *Internat. J. Modern Phys. A* 1 (1986), no. 4, 881–886.
- [92] Yau, Shing-Tung: Nonlinear analysis in geometry. *Enseign. Math. (2)* 33 (1987), no. 1-2, 109–158.
- [93] Tian, Gang; Yau, Shing-Tung: Kähler-Einstein metrics on complex surfaces with  $C_1 > 0$ . *Comm. Math. Phys.* 112 (1987), no. 1, 175–203.
- [94] Jost, J.; Yau, S.-T.: On the rigidity of certain discrete groups and algebraic varieties. *Math. Ann.* 278 (1987), no. 1-4, 481–496.
- [95] Yau, Shing-Tung: Some recent developments in general relativity. Cambridge University Press, Cambridge, 1987, 247–252. ISBN: 0-521-33296-6
- [96] Yau, Shing-Tung: A survey on the interaction between mathematical physics and geometry. World Scientific Publishing Co., Singapore, 1987, 305–310. ISBN: 9971-50-208-9

- [97] Tian, G.; Yau, S.-T.: Three-dimensional algebraic manifolds with  $C_1=0$  and  $\chi=-6$ . Adv. Ser. Math. Phys., 1 World Scientific Publishing Co., Singapore, 1987, 543–559. ISBN: 9971-50-273-9; 9971-50-274-7
- [98] Li, Jun; Yau, Shing-Tung: Hermitian-Yang-Mills connection on non-Kähler manifolds. Adv. Ser. Math. Phys., 1 World Scientific Publishing Co., Singapore, 1987, 560–573. ISBN: 9971-50-273-9; 9971-50-274-7
- [99] Tian, G.; Yau, S.-T.: Existence of Kähler-Einstein metrics on complete Kähler manifolds and their applications to algebraic geometry. Adv. Ser. Math. Phys., 1 World Scientific Publishing Co., Singapore, 1987, 574–628. ISBN: 9971-50-273-9; 9971-50-274-7
- [100] Roan, Shi-Shyr; Yau, Shing-Tung: On Ricci flat 3-fold. Acta Math. Sinica (N.S.) 3 (1987), no. 3, 256–288.
- [101] Schoen, Richard; Yau, Shing-Tung: The structure of manifolds with positive scalar curvature. Publ. Math. Res. Center Univ. Wisconsin, 54 Academic Press, Inc., Boston, MA, 1987, 235–242. ISBN: 0-12-195255-X
- [102] Schoen, R.; Yau, S.-T.: Conformally flat manifolds, Kleinian groups and scalar curvature. Invent. Math. 92 (1988), no. 1, 47–71.
- [103] Christodoulou, D.; Yau, S.-T.: Some remarks on the quasi-local mass. Contemp. Math., 71 American Mathematical Society, Providence, RI, 1988, 9–14. ISBN: 0-8218-5079-2
- [104] Hatfield, B.; Yau, S.-T.: An exchange symmetry expansion for the 2-point correlation function of the nonlinear Schrödinger model. Nuclear Phys. B 305 (1988), no. 1, 16–32.
- [105] Yau, S.-T.: Uniformization of geometric structures. Proc. Sympos. Pure Math., 48 American Mathematical Society, Providence, RI, 1988, 265–274. ISBN: 0-8218-1482-6
- [106] Uhlenbeck, K.; Yau, S.-T.: A note on our previous paper: "On the existence of Hermitian-Yang-Mills connections in stable vector bundles" [Comm. Pure Appl. Math. 39 (1986), S257–S293; MR0861491]. Comm. Pure Appl. Math. 42 (1989), no. 5, 703–707.
- [107] Lu, Steven Shin-Yi; Yau, S.-T.: Holomorphic curves in surfaces of general type. Proc. Nat. Acad. Sci. U.S.A. 87 (1990), no. 1, 80–82.
- [108] Tian, G.; Yau, Shing-Tung: Complete Kähler manifolds with zero Ricci curvature. I. J. Amer. Math. Soc. 3 (1990), no. 3, 579–609.
- [109] Li, J.; Yau, S.-T.; Zheng, F.: A simple proof of Bogomolov's theorem on class VII<sub>0</sub> surfaces with  $b_2=0$ . Illinois J. Math. 34 (1990), no. 2, 217–220.
- [110] Li, Peter; Yau, Shing-Tung: Curvature and holomorphic mappings of complete Kähler manifolds. Compositio Math. 73 (1990), no. 2, 125–144.
- [111] Greene, Brian R.; Shapere, Alfred; Vafa, Cumrun; Yau, Shing-Tung: Stringy cosmic strings and noncompact Calabi-Yau manifolds. Nuclear Phys. B 337 (1990), no. 1, 1–36.
- [112] Yau, S.-T.; Zheng, F.: Negatively 14-pinched Riemannian metric on a compact Kähler manifold. Invent. Math. 103 (1991), no. 3, 527–535.

- [113] Lu, Ya Yan; Yau, Shing-Tung: Eigenvalues of the Laplacian through boundary integral equations. *SIAM J. Matrix Anal. Appl.* 12 (1991), no. 3, 597–609.
- [114] Tian, Gang; Yau, Shing-Tung: Complete Kähler manifolds with zero Ricci curvature. II. *Invent. Math.* 106 (1991), no. 1, 27–60.
- [115] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and Kähler geometry. *Lecture Notes in Math.*, 1468 Springer-Verlag, Berlin, 1991, 340–370. ISBN: 3-540-54053-9
- [116] Yau, Shing-Tung: A review of complex differential geometry. *Proc. Sympos. Pure Math.*, 52, Part 2 American Mathematical Society, Providence, RI, 1991, 619–625. ISBN: 0-8218-1490-7
- [117] Yau, S.-T.; Zheng, F.: On projective manifolds covered by space  $C_n$ . Springer-Verlag, Berlin, 1991, 323–332. ISBN: 3-540-51329-9
- [118] Greene, B. R.; Roan, S.-S.; Yau, S.-T.: Geometric singularities and spectra of Landau-Ginzburg models. *Comm. Math. Phys.* 142 (1991), no. 2, 245–259.
- [119] Smoller, Joel A.; Wasserman, Arthur G.; Yau, S.-T.; McLeod, J. B.: Smooth static solutions of the Einstein/Yang-Mills equations. *Comm. Math. Phys.* 143 (1991), no. 1, 115–147.
- [120] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and group representations. *Pitman Monogr. Surveys Pure Appl. Math.*, 52 Longman Scientific & Technical, Harlow; copublished in the United States with , 1991, 241–259. ISBN: 0-582-05590-3
- [121] Smoller, J.; Wasserman, A.; Yau, S. T.; McLeod, B.: Smooth static solutions of the Einstein-Yang/Mills equations. *Bull. Amer. Math. Soc. (N.S.)* 27 (1992), no. 2, 239–242.
- [122] Li, Peter; Treibergs, Andrejs; Yau, Shing-Tung: How to hear the volume of convex domains. *Contemp. Math.*, 127 American Mathematical Society, Providence, RI, 1992, 109–117. ISBN: 0-8218-5135-7
- [123] Yau, Shing-Tung; Gao, Yang: Obstacle problem for von Kármán equations. *Adv. in Appl. Math.* 13 (1992), no. 2, 123–141.
- [124] Meeks, William H., III; Yau, Shing-Tung: The topological uniqueness of complete minimal surfaces of finite topological type. *Topology* 31 (1992), no. 2, 305–316.
- [125] Cao, Huai Dong; Yau, Shing-Tung: Gradient estimates, Harnack inequalities and estimates for heat kernels of the sum of squares of vector fields. *Math. Z.* 211 (1992), no. 3, 485–504.
- [126] Hübsch, Tristan; Yau, Shing-Tung: An  $SL(2, C)$  action on chiral rings and the mirror map. *Modern Phys. Lett. A* 7 (1992), no. 35, 3277–3289.
- [127] Hübsch, Tristan; Yau, Shing-Tung: An  $SL(2, C)$  action on certain Jacobian rings and the mirror map. International Press, Hong Kong, 1992, 372–387. ISBN: 962-7670-01-4
- [128] Yau, Shing-Tung: S. S. Chern, as my teacher. International Press, Hong Kong, 1992, 271–274. ISBN: 962-7670-02-2



- [129] Yau, Shing-Tung: Open problems in geometry. International Press, Hong Kong, 1992, 275–319. ISBN: 962-7670-02-2
- [130] Yau, Shing-Tung: The current state and prospects of geometry and nonlinear differential equations. Lecture Notes in Math., 1525 Springer-Verlag, Berlin, 1992, 29–39. ISBN: 3-540-56011-4
- [131] Yau, Shing-Tung; Lu, Ya Yan: Reducing the symmetric matrix eigenvalue problem to matrix multiplications. SIAM J. Sci. Comput. 14 (1993), no. 1, 121–136.
- [132] Li, Peter; Yau, Shing-Tung: Asymptotically flat complete Kähler manifolds. Lecture Notes in Pure and Appl. Math., 143 Marcel Dekker, Inc., New York, 1993, 131–144. ISBN: 0-8247-8818-4
- [133] Yau, S.-T.; Zheng, F.: On a borderline class of non-positively curved compact Kähler manifolds. Math. Z. 212 (1993), no. 4, 587–599.
- [134] Yau, S.-T.; Zheng, F.: Remarks on certain higher-dimensional quasi-Fuchsian domains. Proc. Sympos. Pure Math., 54, Part 2 American Mathematical Society, Providence, RI, 1993, 629–635. ISBN: 0-8218-1495-8
- [135] Yau, Shing-Tung: Open problems in geometry. Proc. Sympos. Pure Math., 54, Part 1 American Mathematical Society, Providence, RI, 1993, 1–28. ISBN: 0-8218-1494-X
- [136] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and superrigidity. Proc. Sympos. Pure Math., 54, Part 1 American Mathematical Society, Providence, RI, 1993, 245–280. ISBN: 0-8218-1494-X
- [137] Smoller, J. A.; Wasserman, A. G.; Yau, S.-T.: Existence of black hole solutions for the Einstein-Yang/Mills equations. Comm. Math. Phys. 154 (1993), no. 2, 377–401.
- [138] Jost, Jürgen; Yau, Shing-Tung: A nonlinear elliptic system for maps from Hermitian to Riemannian manifolds and rigidity theorems in Hermitian geometry. Acta Math. 170 (1993), no. 2, 221–254.
- [139] Jost, Jürgen; Yau, Shing-Tung: Harmonic mappings and algebraic varieties over function fields. Amer. J. Math. 115 (1993), no. 6, 1197–1227.
- [140] Yau, Shing-Tung: A splitting theorem and an algebraic geometric characterization of locally Hermitian symmetric spaces. Comm. Anal. Geom. 1 (1993), no. 3-4, 473–486.
- [141] Hübsch, Tristan; Yau, Shing-Tung: On the geometry of certain superconformal field theory paradigms (towards a quantum algebraic geometry). Conf. Proc. Lecture Notes Algebraic Geom., I International Press, Cambridge, MA, 1993, 121–149. ISBN: 1-57146-013-6
- [142] Jost, Jürgen; Yau, Shing-Tung: Applications of quasilinear PDE to algebraic geometry and arithmetic lattices. Conf. Proc. Lecture Notes Algebraic Geom., I International Press, Cambridge, MA, 1993, 169–193. ISBN: 1-57146-013-6
- [143] Bourguignon, Jean-Pierre; Li, Peter; Yau, Shing-Tung: Upper bound for the first eigenvalue of algebraic submanifolds. Comment. Math. Helv. 69 (1994), no. 2, 199–207.

- [144] Jost, Jürgen; Yau, Shing-Tung: Correction to: "A nonlinear elliptic system for maps from Hermitian to Riemannian manifolds and rigidity theorems in Hermitian geometry" [Acta Math. 170 (1993), no. 2, 221–254; MR1226528]. Acta Math. 173 (1994), no. 2, 307.
- [145] Yau, Shing-Tung: On the Harnack inequalities of partial differential equations. Comm. Anal. Geom. 2 (1994), no. 3, 431–450.
- [146] Li, Jun; Yau, Shing-Tung; Zheng, Fangyang: On projectively flat Hermitian manifolds. Comm. Anal. Geom. 2 (1994), no. 1, 103–109.
- [147] Schoen, R.; Yau, S.-T.: Lectures on differential geometry. Conf. Proc. Lecture Notes Geom. Topology, I International Press, Cambridge, MA, 1994, v+235 pp. ISBN: 1-57146-012-8
- [148] Chung, F. R. K.; Yau, S.-T.: A Harnack inequality for homogeneous graphs and subgraphs. Comm. Anal. Geom. 2 (1994), no. 4, 627–640.
- [149] Shi, Wanxiong; Yau, S. T.: Harmonic maps on complete noncompact Riemannian manifolds. Discourses Math. Appl., 3 Texas A & M University, Department of Mathematics, College Station, TX, 1994, 79–120. ISBN: 0-9630728-2-X
- [150] Hosono, S.; Klemm, A.; Theisen, S.; Yau, S.-T.: Mirror symmetry, mirror map and applications to Calabi-Yau hypersurfaces. Comm. Math. Phys. 167 (1995), no. 2, 301–350.
- [151] Hosono, S.; Klemm, A.; Theisen, S.; Yau, S.-T.: Mirror symmetry, mirror map and applications to complete intersection Calabi-Yau spaces. Nuclear Phys. B 433 (1995), no. 3, 501–552.
- [152] Chung, F. R. K.; Yau, S.-T.: Eigenvalues of graphs and Sobolev inequalities. Combin. Probab. Comput. 4 (1995), no. 1, 11–25.
- [153] Chung, F. R. K.; Yau, S.-T.: A Harnack inequality for homogeneous graphs and subgraphs. Turkish J. Math. 19 (1995), no. 2, 119–129.
- [154] Yau, Shing-Tung: Harnack inequality for non-self-adjoint evolution equations. Math. Res. Lett. 2 (1995), no. 4, 387–399.
- [155] Smoller, J. A.; Wasserman, A. G.; Yau, S.-T.: Einstein-Yang/Mills black hole solutions. International Press, Cambridge, MA, 1995, 209–220. ISBN: 1-57146-001-2
- [156] Lian, Bong H.; Yau, Shing-Tung: Mirror symmetry, rational curves on algebraic manifolds and hypergeometric series. International Press, Cambridge, MA, 1995, 163–184. ISBN: 1-57146-030-6
- [157] Yau, Shing-Tung: Review on Kähler-Einstein metrics in algebraic geometry. Israel Math. Conf. Proc., 9 Bar-Ilan University, Gelbart Research Institute for Mathematical Sciences, Ramat Gan; distributed by the , 1996, 433–443.
- [158] Huisken, Gerhard; Yau, Shing-Tung: Definition of center of mass for isolated physical systems and unique foliations by stable spheres with constant mean curvature. Invent. Math. 124 (1996), no. 1-3, 281–311.

- [159] Chung, F. R. K.; Grigor'yan, A.; Yau, S.-T.: Upper bounds for eigenvalues of the discrete and continuous Laplace operators. *Adv. Math.* 117 (1996), no. 2, 165–178.
- [160] Lian, Bong H.; Yau, Shing-Tung: Arithmetic properties of mirror map and quantum coupling. *Comm. Math. Phys.* 176 (1996), no. 1, 163–191.
- [161] Yau, Shing-Tung: An application of eigenvalue estimate to algebraic curves defined by congruence subgroups. *Math. Res. Lett.* 3 (1996), no. 2, 167–172.
- [162] Klemm, A.; Lian, B. H.; Roan, S. S.; Yau, S. T.: A note on ODEs from mirror symmetry. *Progr. Math.*, 132 Birkhäuser Boston, Inc., Boston, MA, 1996, 301–323. ISBN: 0-8176-3855-5
- [163] Shi, Wan-Xiong; Yau, S.-T.: A note on the total curvature of a Kähler manifold. *Math. Res. Lett.* 3 (1996), no. 1, 123–132.
- [164] Yau, Shing-Tung; Zaslow, Eric: BPS states, string duality, and nodal curves on  $K3$ . *Nuclear Phys. B* 471 (1996), no. 3, 503–512.
- [165] Yau, S.-T.; Yau, S. S.-T.: Explicit solution of a Kolmogorov equation. *Appl. Math. Optim.* 34 (1996), no. 3, 231–266.
- [166] Lian, Bong H.; Yau, Shing-Tung: Mirror maps, modular relations and hypergeometric series. II. *Nuclear Phys. B Proc. Suppl.* 46 (1996), 248–262.
- [167] Chung, F. R. K.; Yau, S.-T.: Logarithmic Harnack inequalities. *Math. Res. Lett.* 3 (1996), no. 6, 793–812.
- [168] Strominger, Andrew; Yau, Shing-Tung; Zaslow, Eric: Mirror symmetry is T-duality. *Nuclear Phys. B* 479 (1996), no. 1-2, 243–259.
- [169] Hosono, S.; Lian, B. H.; Yau, S.-T.: GKZ-generalized hypergeometric systems in mirror symmetry of Calabi-Yau hypersurfaces. *Comm. Math. Phys.* 182 (1996), no. 3, 535–577.
- [170] Chung, F. R. K.; Graham, R. L.; Yau, S.-T.: On sampling with Markov chains. *Random Structures Algorithms* 9 (1996), no. 1-2, 55–77.
- [171] Hosono, S.; Klemm, A.; Theisen, S.; Yau, S.-T.: Mirror symmetry, mirror map and applications to complete intersection Calabi-Yau spaces [MR1319280]. *AMS/IP Stud. Adv. Math.*, 1 American Mathematical Society, Providence, RI, 1997, 545–606. ISBN: 0-8218-0634-3
- [172] Hosono, S.; Lian, B. H.; Yau, S.-T.: Maximal degeneracy points of GKZ systems. *J. Amer. Math. Soc.* 10 (1997), no. 2, 427–443.
- [173] Yau, Shing-Tung; Zaslow, Eric: BPS states as symplectic invariants from string theory. *Lecture Notes in Pure and Appl. Math.*, 184 Marcel Dekker, Inc., New York, 1997, 177–186. ISBN: 0-8247-9791-4
- [174] Schoen, R.; Yau, S. T.: Lectures on harmonic maps. *Conf. Proc. Lecture Notes Geom. Topology*, II International Press, Cambridge, MA, 1997, vi+394 pp. ISBN: 1-57146-002-0
- [175] Chung, F. R. K.; Grigor'yan, A.; Yau, S.-T.: Eigenvalues and diameters for manifolds and graphs. *International Press, Cambridge, MA*, 1997, 79–105. ISBN: 1-57146-042-X

- [176] Chung, F. R. K.; Yau, S.-T.: A combinatorial trace formula. International Press, Cambridge, MA, 1997, 107–116. ISBN: 1-57146-042-X
- [177] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and superrigidity. International Press, Cambridge, MA, 1997, 213–246. ISBN: 1-57146-042-X
- [178] Yau, Shing Tung: Sobolev inequality for measure space. International Press, Cambridge, MA, 1997, 299–313. ISBN: 1-57146-042-X
- [179] Yau, Shing Tang: A note on the distribution of critical points of eigenfunctions. International Press, Cambridge, MA, 1997, 315–317. ISBN: 1-57146-042-X
- [180] Yau, Shing Tung: A remark on the existence of sphere with prescribed mean curvature. Asian J. Math. 1 (1997), no. 2, 293–294.
- [181] Hamilton, Richard S.; Yau, Shing-Tung: The Harnack estimate for the Ricci flow on a surface—revisited. Asian J. Math. 1 (1997), no. 3, 418–421.
- [182] Chung, F. R. K.; Yau, S.-T.: Eigenvalue inequalities for graphs and convex subgraphs. Comm. Anal. Geom. 5 (1997), no. 4, 575–623.
- [183] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. I. Asian J. Math. 1 (1997), no. 4, 729–763.
- [184] Yau, Shing Tung: A note on the distribution of critical points of eigenfunctions. World Scientific Publishing Co., Inc., River Edge, NJ, 1997, 173–175. ISBN: 981-02-3024-9
- [185] Klemm, A.; Lian, B.; Roan, S.-S.; Yau, S.-T.: Calabi-Yau four-folds for M- and F-theory compactifications. Nuclear Phys. B 518 (1998), no. 3, 515–574.
- [186] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: The Candelas-de la Ossa-Green-Parkes formula. Nuclear Phys. B Proc. Suppl. 67 (1998), 106–114.
- [187] Hoppe, Jens; Yau, Shing-Tung: Some properties of matrix harmonics on  $S^2$ . Comm. Math. Phys. 195 (1998), no. 1, 67–77.
- [188] Yau, Shing-Tung; Yau, Stephen S. T.: Finite-dimensional filters with nonlinear drift. XI. Explicit solution of the generalized Kolmogorov equation in Brockett-Mitter program. Adv. Math. 140 (1998), no. 2, 156–189.
- [189] Salaff, Stephen; Yau, Shing-Tung: Ordinary differential equations. International Press, Cambridge, MA, 1998, vi+72 pp. ISBN: 1-57146-065-9
- [190] Lian, Bong H.; Yau, Shing-Tung: On mirror symmetry. Lect. Algebra Geom., 2 International Press, Cambridge, MA, 1998, 207–213. ISBN: 1-57146-058-6
- [191] Lian, Bong H.; Yau, Shing-Tung: Integrality of certain exponential series. Lect. Algebra Geom., 2 International Press, Cambridge, MA, 1998, 215–227. ISBN: 1-57146-058-6
- [192] Kashiwara, Masaki; Kawai, Takahiro; Yau, Shing-Tung: Preface. Asian J. Math. 2 (1998), no. 4, vii–x.

- [193] Yau, Shing-Tung; Yau, Stephen S.-T.: Existence and decay estimates for time dependent parabolic equation with application to Duncan-Mortensen-Zakai equation. *Asian J. Math.* 2 (1998), no. 4, 1079–1149.
- [194] Grigor'yan, A.; Yau, S.-T.: Decomposition of a metric space by capacitors. *Proc. Sympos. Pure Math.*, 65 American Mathematical Society, Providence, RI, 1999, 39–75. ISBN: 0-8218-0610-6
- [195] Chung, Fan; Yau, S.-T.: Coverings, heat kernels and spanning trees. *Electron. J. Combin.* 6 (1999), Research Paper 12, 21 pp.
- [196] Yau, Shing-Tung: Introduction to enumerative invariants. *AMS/IP Stud. Adv. Math.*, 10 American Mathematical Society, Providence, RI, 1999, 69–75. ISBN: 0-8218-1193-2
- [197] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. II. *Asian J. Math.* 3 (1999), no. 1, 109–146.
- [198] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: The coupling of gravity to spin and electromagnetism. *Modern Phys. Lett. A* 14 (1999), no. 16, 1053–1057.
- [199] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Particlelike solutions of the Einstein-Dirac equations. *Phys. Rev. D* (3) 59 (1999), no. 10, 104020, 19 pp.
- [200] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Non-existence of black hole solutions for a spherically symmetric, static Einstein-Dirac-Maxwell system. *Comm. Math. Phys.* 205 (1999), no. 2, 249–262.
- [201] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Particle-like solutions of the Einstein-Dirac-Maxwell equations. *Phys. Lett. A* 259 (1999), no. 6, 431–436.
- [202] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and rigidity theorems for spaces of nonpositive curvature. *Comm. Anal. Geom.* 7 (1999), no. 4, 681–694.
- [203] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. I [MR1621573]. *Surv. Differ. Geom.*, 5 International Press, Boston, MA, 1999, 405–454. ISBN: 1-57146-070-5
- [204] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. II [MR1701925]. *Surv. Differ. Geom.*, 5 International Press, Boston, MA, 1999, 455–509. ISBN: 1-57146-070-5
- [205] Lian, Bong H.; Yau, Shing-Tung: Differential equations from mirror symmetry. *Surv. Differ. Geom.*, 5 International Press, Boston, MA, 1999, 510–526. ISBN: 1-57146-070-5
- [206] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle, a survey. *International Press*, Somerville, MA, 1999, 35–82. ISBN: 1-57146-077-2
- [207] Chiang, T.-M.; Klemm, A.; Yau, S.-T.; Zaslow, E.: Local mirror symmetry: calculations and interpretations. *Adv. Theor. Math. Phys.* 3 (1999), no. 3, 495–565.
- [208] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. III. *Asian J. Math.* 3 (1999), no. 4, 771–800.

- [209] Yau, S.-T.: Einstein manifolds with zero Ricci curvature. *Surv. Differ. Geom.*, 6 International Press, Boston, MA, 1999, 1–14. ISBN: 1-57146-068-3
- [210] Witten, Edward; Yau, S.-T.: Connectedness of the boundary in the AdS/CFT correspondence. *Adv. Theor. Math. Phys.* 3 (1999), no. 6, 1635–1655.
- [211] Fröhlich, J.; Graf, G. M.; Hasler, D.; Hoppe, J.; Yau, S.-T.: Asymptotic form of zero energy wave functions in supersymmetric matrix models. *Nuclear Phys. B* 567 (2000), no. 1-2, 231–248.
- [212] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Non-existence of time-periodic solutions of the Dirac equation in a Reissner-Nordström black hole background. *J. Math. Phys.* 41 (2000), no. 4, 2173–2194.
- [213] Finster, Felix; Kamran, Niky; Smoller, Joel; Yau, Shing-Tung: Nonexistence of time-periodic solutions of the Dirac equation in an axisymmetric black hole geometry. *Comm. Pure Appl. Math.* 53 (2000), no. 7, 902–929.
- [214] Yau, S.-T.: Open problems in geometry. *J. Ramanujan Math. Soc.* 15 (2000), no. 2, 125–134.
- [215] Yau, S.-T.: Review of geometry and analysis. American Mathematical Society, Providence, RI, 2000, 353–401. ISBN: 0-8218-2070-2
- [216] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: The interaction of Dirac particles with non-abelian gauge fields and gravity—black holes. *Michigan Math. J.* 47 (2000), no. 1, 199–208.
- [217] Finster, Felix; Kamran, Niky; Smoller, Joel; Yau, Shing-Tung: Erratum: "Nonexistence of time-periodic solutions of the Dirac equation in an axisymmetric black hole geometry". *Comm. Pure Appl. Math.* 53 (2000), no. 9, 1201.
- [218] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Some recent progress in classical general relativity. *J. Math. Phys.* 41 (2000), no. 6, 3943–3963.
- [219] Chung, Fan; Yau, S.-T.: A Harnack inequality for Dirichlet eigenvalues. *J. Graph Theory* 34 (2000), no. 4, 247–257.
- [220] Chung, Fan; Yau, S.-T.: Discrete Green's functions. *J. Combin. Theory Ser. A* 91 (2000), no. 1-2, 191–214.
- [221] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: The interaction of Dirac particles with non-abelian gauge fields and gravity—bound states. *Nuclear Phys. B* 584 (2000), no. 1-2, 387–414.
- [222] Yau, S.-T.: Review of geometry and analysis. *Asian J. Math.* 4 (2000), no. 1, 235–278.
- [223] Yau, Shing-Tung; Yau, Stephen S.-T.: Real time solution of nonlinear filtering problem without memory. *I. Math. Res. Lett.* 7 (2000), no. 5-6, 671–693.
- [224] Chung, Fan; Grigor'yan, Alexander; Yau, Shing-Tung: Higher eigenvalues and isoperimetric inequalities on Riemannian manifolds and graphs. *Comm. Anal. Geom.* 8 (2000), no. 5, 969–1026.
- [225] Yau, Shing-Tung; Zhang, Wen: Nonlinear and linear elastic impact theory. *Methods Appl. Anal.* 7 (2000), no. 3, 591–604.

- [226] Finster, Felix; Smoller, Joel; Yau, Shing-Tung: Absence of static, spherically symmetric black hole solutions for Einstein-Dirac-Yang/Mills equations with complete fermion shells. *Adv. Theor. Math. Phys.* 4 (2000), no. 6, 1231–1257.
- [227] Leung, Naichung Conan; Yau, Shing-Tung; Zaslow, Eric: From special Lagrangian to Hermitian-Yang-Mills via Fourier-Mukai transform. *Adv. Theor. Math. Phys.* 4 (2000), no. 6, 1319–1341.
- [228] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. III [MR1797578]. *Surv. Differ. Geom.*, 7 International Press, Somerville, MA, 2000, 433–474. ISBN: 1-57146-069-1
- [229] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Mirror principle. IV. *Surv. Differ. Geom.*, 7 International Press, Somerville, MA, 2000, 475–496. ISBN: 1-57146-069-1
- [230] Andreas, Björn; Yau, Shing-Tung; Curio, Gottfried; Ruipérez, Daniel Hernández: Fibrewise T-duality for D-branes on elliptic Calabi-Yau. *J. High Energy Phys.*(2001), no. 3, Paper 20, 13 pp.
- [231] Yau, S.-T.: The work of Chang-Shou Lin. *AMS/IP Stud. Adv. Math.*, 20 American Mathematical Society, Providence, RI, 2001, xli–xlii. ISBN: 0-8218-2652-2
- [232] Yau, S.-T.: The work of Kefeng Liu. *AMS/IP Stud. Adv. Math.*, 20 American Mathematical Society, Providence, RI, 2001, lv–lvi. ISBN: 0-8218-2652-2
- [233] Lian, Bong H.; Yau, Shing-Tung: A tour of mirror symmetry. *AMS/IP Stud. Adv. Math.*, 20 American Mathematical Society, Providence, RI, 2001, 115–127. ISBN: 0-8218-2652-2
- [234] Yau, Shing-Tung; Yau, Stephen S.-T.: Real-time numerical solution to Duncan-Mortensen-Zakai equation. *London Math. Soc. Lecture Note Ser.*, 284 Cambridge University Press, Cambridge, 2001, 361–400. ISBN: 0-521-00349-0
- [235] Chen, Beifang; Yau, Shing-Tung; Yeh, Yeong-Nan: Graph homotopy and Graham homotopy. *Discrete Math.* 241 (2001), no. 1-3, 153–170.
- [236] Leung, Naichung Conan; Yau, Shing-Tung; Zaslow, Eric: From special Lagrangian to Hermitian-Yang-Mills via Fourier-Mukai transform. *AMS/IP Stud. Adv. Math.*, 23 American Mathematical Society, Providence, RI, 2001, 209–225. ISBN: 0-8218-2159-8
- [237] Strominger, Andrew; Yau, Shing-Tung; Zaslow, Eric: Mirror symmetry is T-duality [MR1429831]. *AMS/IP Stud. Adv. Math.*, 23 American Mathematical Society, Providence, RI, 2001, 333–347. ISBN: 0-8218-2159-8
- [238] Yau, Shing Tung: Geometry of three manifolds and existence of black hole due to boundary effect. *Adv. Theor. Math. Phys.* 5 (2001), no. 4, 755–767.
- [239] Finster, F.; Smoller, J. A.; Yau, S. T.: The Einstein-Dirac-Maxwell equations—black hole solutions. *Methods Appl. Anal.* 8 (2001), no. 4, 623–634.
- [240] Lian, Bong; Liu, Kefeng; Yau, Shing-Tung: Towards a mirror principle for higher genus. *AMS/IP Stud. Adv. Math.*, 29 American Mathematical Society, Providence, RI, 2002, 77–86. ISBN: 0-8218-3294-8

- [241] Yau, Shing Tung: Some progress in classical general relativity. AMS/IP Stud. Adv. Math., 29 American Mathematical Society, Providence, RI, 2002, 191–206. ISBN: 0-8218-3294-8
- [242] Finster, F.; Kamran, N.; Smoller, J.; Yau, S.-T.: Decay rates and probability estimates for massive Dirac particles in the Kerr-Newman black hole geometry. *Comm. Math. Phys.* 230 (2002), no. 2, 201–244.
- [243] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: Some applications of mirror principle. *Contemp. Math.*, 314 American Mathematical Society, Providence, RI, 2002, 161–167. ISBN: 0-8218-2820-7
- [244] Yau, Shing Tung: Geometry and spacetime. *Internat. J. Modern Phys. A* 17 (2002), 197–204.
- [245] Thomas, R. P.; Yau, S.-T.: Special Lagrangians, stable bundles and mean curvature flow. *Comm. Anal. Geom.* 10 (2002), no. 5, 1075–1113.
- [246] Hu, Yi; Liu, Chien-Hao; Yau, Shing-Tung: Toric morphisms and fibrations of toric Calabi-Yau hypersurfaces. *Adv. Theor. Math. Phys.* 6 (2002), no. 3, 457–506.
- [247] Hu, Y.; Yau, S.-T.: HyperKähler manifolds and birational transformations. *Adv. Theor. Math. Phys.* 6 (2002), no. 3, 557–574.
- [248] Gu, Xianfeng; Yau, Shing-Tung: Computing conformal structures of surfaces. *Commun. Inf. Syst.* 2 (2002), no. 2, 121–145.
- [249] Lian, Bong H.; Liu, Kefeng; Yau, Shing-Tung: A survey of mirror principle. AMS/IP Stud. Adv. Math., 33 American Mathematical Society, Providence, RI, 2002, 3–10. ISBN: 0-8218-3335-9
- [250] Witten, Edward; Yau, S.-T.: Connectedness of the boundary in the AdS/CFT correspondence [MR1812133]. AMS/IP Stud. Adv. Math., 33 American Mathematical Society, Providence, RI, 2002, 273–287. ISBN: 0-8218-3335-9
- [251] Yau, S.-T.: A note on the topology of the boundary in the AdS/CFT correspondence. Comment on: "Connectedness of the boundary in the AdS/CFT correspondence" [Adv. Theor. Math. Phys. 3 (1999), no. 6, 1635–1655; MR1812133] by E. Witten and Yau. AMS/IP Stud. Adv. Math., 33 American Mathematical Society, Providence, RI, 2002, 289–290. ISBN: 0-8218-3335-9
- [252] Smith, I.; Thomas, R. P.; Yau, S.-T.: Symplectic conifold transitions. *J. Differential Geom.* 62 (2002), no. 2, 209–242.
- [253] Lian, Bong H.; Liu, Chien-Hao; Yau, Shing-Tung: A reconstruction of Euler data. *J. Algebraic Geom.* 12 (2003), no. 2, 269–284.
- [254] Gukov, Sergei; Yau, Shing-Tung; Zaslow, Eric: Duality and fibrations on  $G_2$  manifolds. *Turkish J. Math.* 27 (2003), no. 1, 61–97.
- [255] Hosono, Shinobu; Lian, Bong H.; Oguiso, Keiji; Yau, Shing-Tung: Fourier-Mukai partners of a  $K3$  surface of Picard number one. *Contemp. Math.*, 322 American Mathematical Society, Providence, RI, 2003, 43–55. ISBN: 0-8218-3264-6



- [256] Lian, Bong H.; Liu, Chien-Hao; Liu, Kefeng; Yau, Shing-Tung: The  $S^1$  fixed points in Quot-schemes and mirror principle computations. *Contemp. Math.*, 322 American Mathematical Society, Providence, RI, 2003, 165–194. ISBN: 0-8218-3264-6
- [257] Grigor'yan, Alexander; Yau, Shing-Tung: Isoperimetric properties of higher eigenvalues of elliptic operators. *Amer. J. Math.* 125 (2003), no. 4, 893–940.
- [258] Liu, Chiu-Chu Melissa; Yau, Shing-Tung: Positivity of quasilocal mass. *Phys. Rev. Lett.* 90 (2003), no. 23, 231102, 4 pp.
- [259] Hosono, Shinobu; Lian, Bong H.; Oguiso, Keiji; Yau, Shing-Tung:  $c=2$  rational toroidal conformal field theories via the Gauss product. *Comm. Math. Phys.* 241 (2003), no. 2-3, 245–286.
- [260] Finster, Felix; Kamran, Niky; Smoller, Joel; Yau, Shing-Tung: The long-time dynamics of Dirac particles in the Kerr-Newman black hole geometry. *Adv. Theor. Math. Phys.* 7 (2003), no. 1, 25–52.
- [261] Lian, Bong H.; Yau, Shing-Tung: The  $n$ th root of the mirror map. *Fields Inst. Commun.*, 38 American Mathematical Society, Providence, RI, 2003, 195–199. ISBN: 0-8218-3355-3
- [262] Hosono, Shinobu; Lian, Bong H.; Oguiso, Keiji; Yau, Shing-Tung: Kummer structures on  $K3$  surface: an old question of T. Shioda. *Duke Math. J.* 120 (2003), no. 3, 635–647.
- [263] Yau, Shing-Tung: *Geometry motivated by physics*. World Scientific Publishing Co., Inc., River Edge, NJ, 2003, 113–123. ISBN: 981-238-563-0
- [264] Yau, Shing-Tung: An estimate of the gap of the first two eigenvalues in the Schrödinger operator. *New Stud. Adv. Math.*, 2 International Press, Somerville, MA, 2003, 223–235. ISBN: 1-57146-111-6
- [265] Baouendi, Salah; Kohn, Joseph J.; Lu, Qi-keng; Mok, Ngaiming; Yau, Shing-Tung; Yau, Stephen S. T.: Preface [Special issue dedicated to Professor Yum-Tong Siu]. *Asian J. Math.* 7 (2003), no. 4, iii.
- [266] Gu, Xianfeng; Wang, Yalin; Yau, Shing-Tung: Computing conformal invariants: period matrices. *Commun. Inf. Syst.* 3 (2003), no. 3, 153–169.
- [267] Gu, Xianfeng; Wang, Yalin; Yau, Shing-Tung: Geometric compression using Riemann surface structure. *Commun. Inf. Syst.* 3 (2003), no. 3, 171–182.
- [268] Wang, Yalin; Gu, Xianfeng; Yau, Shing-Tung: Volumetric harmonic map. *Commun. Inf. Syst.* 3 (2003), no. 3, 191–201.
- [269] Hosono, Shinobu; Lian, Bong H.; Oguiso, Keiji; Yau, Shing-Tung: Autoequivalences of derived category of a  $K3$  surface and monodromy transformations. *J. Algebraic Geom.* 13 (2004), no. 3, 513–545.
- [270] Liu, Chien-Hao; Liu, Kefeng; Yau, Shing-Tung: On  $A$ -twisted moduli stack for curves from Witten's gauged linear sigma models. *Comm. Anal. Geom.* 12 (2004), no. 1-2, 233–280.
- [271] Yamaguchi, Satoshi; Yau, Shing-Tung: Topological string partition functions as polynomials. *J. High Energy Phys.*(2004), no. 7, 047, 20 pp.

- [272] Hosono, Shinobu; Lian, Bong H.; Oguiso, Keiji; Yau, Shing-Tung: Fourier-Mukai number of a K3 surface. CRM Proc. Lecture Notes, 38 American Mathematical Society, Providence, RI, 2004, 177–192. ISBN: 0-8218-3568-8
- [273] Liu, Chiu-Chu Melissa; Yau, Shing-Tung: Liu and Yau reply: ``Comment on: `Positivity of Quasilocal mass`,'' [Phys. Rev. Lett. 92 (2004), no. 25, 259001, 1 p.; MR2114434] by N. Ó. Murchadha, L. B. Szabados and K. P. Tod. Phys. Rev. Lett. 92 (2004), no. 25, 259002, 1 p.
- [274] Coates, John; Ji, Lizhen; Prasad, Gopal; Siu, Yum-Tong; Yau, Shing-Tung: Preface [Special issue dedicated to the memory of Professor Armand Borel, 1923–2003]. Asian J. Math. 8 (2004), no. 4, iii.
- [275] Baouendi, Salah; Kohn, Joseph J.; Lu, Qi-keng; Mok, Ngaiming; Yau, Shing-Tung; Yau, Stephen S. T.: Preface [Special issue dedicated to the 60th birthday of Yum-Tong Siu. Part II]. Asian J. Math. 8 (2004), no. 1, iii.
- [276] Baouendi, Salah; Kohn, Joseph J.; Lu, Qi-keng; Mok, Ngaiming; Yau, Shing-Tung; Yau, Stephen S. T.: Preface [Special issue dedicated to the 60th birthday of Yum-Tong Siu. Part III]. Asian J. Math. 8 (2004), no. 2, iii.
- [277] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Canonical metrics on the moduli space of Riemann surfaces. I. J. Differential Geom. 68 (2004), no. 3, 571–637.
- [278] Grigor'yan, Alexander; Netrusov, Yuri; Yau, Shing-Tung: Eigenvalues of elliptic operators and geometric applications. Surv. Differ. Geom., 9 International Press, Somerville, MA, 2004, 147–217. ISBN: 1-57146-115-9
- [279] Lian, Bong H.; Todorov, Andrey; Yau, Shing-Tung: Maximal unipotent monodromy for complete intersection CY manifolds. Amer. J. Math. 127 (2005), no. 1, 1–50.
- [280] Liu, Kefeng; Todorov, Andrey; Yau, Shing-Tung; Zuo, Kang: Shafarevich's conjecture for CY manifolds. I. Q. J. Pure Appl. Math. 1 (2005), no. 1, 28–67.
- [281] Yau, Shing-Tung: Complex geometry: its brief history and its future. Sci. China Ser. A 48 (2005), 47–60.
- [282] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Geometric aspects of the moduli space of Riemann surfaces. Sci. China Ser. A 48 (2005), 97–122.
- [283] Jin, Miao; Wang, Yalin; Gu, Xianfeng; Yau, Shing-Tung: Optimal global conformal surface parameterization for visualization. Commun. Inf. Syst. 4 (2005), no. 2, 117–134.
- [284] Wang, Yalin; Gu, Xianfeng; Yau, Shing-Tung: Surface segmentation using global conformal structure. Commun. Inf. Syst. 4 (2005), no. 2, 165–179.
- [285] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Canonical metrics on the moduli space of Riemann surfaces. II. J. Differential Geom. 69 (2005), no. 1, 163–216.
- [286] Finster, F.; Kamran, N.; Smoller, J.; Yau, S.-T.: An integral spectral representation of the propagator for the wave equation in the Kerr geometry. Comm. Math. Phys. 260 (2005), no. 2, 257–298.

- [287] Yau, Stephen S.-T.; Yau, Shing-Tung: Solution of filtering problem with nonlinear observations. *SIAM J. Control Optim.* 44 (2005), no. 3, 1019–1039.
- [288] Cheng, Hsiao-Bing; Cheng, Li-Tien; Yau, Shing-Tung: Minimization with the affine normal direction. *Commun. Math. Sci.* 3 (2005), no. 4, 561–574.
- [289] Loftin, John; Yau, Shing-Tung; Zaslow, Eric: Affine manifolds, SYZ geometry and the "Y" vertex. *J. Differential Geom.* 71 (2005), no. 1, 129–158.
- [290] Li, Jun; Yau, Shing-Tung: The existence of supersymmetric string theory with torsion. *J. Differential Geom.* 70 (2005), no. 1, 143–181.
- [291] Xin, Zhouping; Yau, Shing-Tung: Preface [Special issue dedicated to the 70th birthday of Prof. Joel Smoller. I]. *Methods Appl. Anal.* 12 (2005), no. 2, iii.
- [292] Liu, Chiu-Chu Melissa; Yau, Shing-Tung: Positivity of quasi-local mass. II. *J. Amer. Math. Soc.* 19 (2006), no. 1, 181–204.
- [293] Liu, Chien-Hao; Liu, Kefeng; Yau, Shing-Tung: Mirror symmetry and localizations. *Progr. Math.*, 244 Birkhäuser Boston, Inc., Boston, MA, 2006, 421–442. ISBN: 978-0-8176-4076-7; 0-8176-4076-2
- [294] Yau, Shing-Tung: Chern's work in geometry. *Asian J. Math.* 10 (2006), no. 1, v–xii.
- [295] Finster, F.; Kamran, N.; Smoller, J.; Yau, S.-T.: Decay of solutions of the wave equation in the Kerr geometry. *Comm. Math. Phys.* 264 (2006), no. 2, 465–503.
- [296] Ji, Lizhen; Yau, Shing-Tung; Zhang, Shouwu: Preface to the Coates special issues [Special issue: In honor of John H. Coates, Part 1]. *Pure Appl. Math. Q.* 2 (2006), no. 1, i–v.
- [297] Becker, Katrin; Becker, Melanie; Fu, Ji-Xiang; Tseng, Li-Sheng; Yau, Shing-Tung: Anomaly cancellation and smooth non-Kähler solutions in heterotic string theory. *Nuclear Phys. B* 751 (2006), no. 1-2, 108–128.
- [298] Martelli, Dario; Sparks, James; Yau, Shing-Tung: The geometric dual of  $\alpha$ -maximisation for toric Sasaki-Einstein manifolds. *Comm. Math. Phys.* 268 (2006), no. 1, 39–65.
- [299] Yau, Shing-Tung: Spacetime and the geometry behind it. *Milan J. Math.* 74 (2006), 339–356.
- [300] Liu, Chien-Hao; Yau, Shing-Tung: Extracting Gromov-Witten invariants of a conifold from semi-stable reduction and relative GW-invariants of pairs. *AMS/IP Stud. Adv. Math.*, 38 American Mathematical Society, Providence, RI, 2006, 441–456. ISBN: 978-0-8218-4251-5; 0-8218-4251-X
- [301] Huang, Wen-Ling; Yau, Shing Tung; Zhang, Xiao: Positivity of the Bondi mass in Bondi's radiating spacetimes. *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* 17 (2006), no. 4, 335–349.
- [302] Yau, Shing-Tung: Perspectives on geometric analysis. *Surv. Differ. Geom.*, 10 International Press, Somerville, MA, 2006, 275–379. ISBN: 978-1-57146-116-2; 1-57146-116-7
- [303] Fu, Ji-Xiang; Yau, Shing-Tung: A Monge-Ampère-type equation motivated by string theory. *Comm. Anal. Geom.* 15 (2007), no. 1, 29–75.

- [304] Gauntlett, Jerome P.; Martelli, Dario; Sparks, James; Yau, Shing-Tung: Obstructions to the existence of Sasaki-Einstein metrics. *Comm. Math. Phys.* 273 (2007), no. 3, 803–827.
- [305] Dai, Junfei; Luo, Wei; Jin, Miao; Zeng, Wei; He, Ying; Yau, Shing-Tung; Gu, Xianfeng: Geometric accuracy analysis for discrete surface approximation. *Comput. Aided Geom. Design* 24 (2007), no. 6, 323–338.
- [306] Ji, Lizhen; Liu, Kefeng; Yau, Shing-Tung: Preface to the Simon special issues. *Pure Appl. Math. Q.* 3 (2007), no. 2, i–iv.
- [307] Yau, Shing-Tung: Perspectives and geometric analysis. *AMS/IP Stud. Adv. Math.*, 39 American Mathematical Society, Providence, RI, 2007, 289–378. ISBN: 978-0-8218-3949-2
- [308] Wang, Mu-Tao; Yau, Shing-Tung: A generalization of Liu-Yau's quasi-local mass. *Comm. Anal. Geom.* 15 (2007), no. 2, 249–282.
- [309] Becker, Melanie; Tseng, Li-Sheng; Yau, Shing-Tung: Moduli space of torsional manifolds. *Nuclear Phys. B* 786 (2007), no. 1-2, 119–134.
- [310] Burger, Marc; Ji, Lizhen; Lubotzky, Alexander; Oh, Hee; Yau, Shing-Tung: Preface [Special issue in honor of Grigory Margulis. Part 1]. *Pure Appl. Math. Q.* 3 (2007), no. 4, i–vii.
- [311] Zeng, Wei; Li, Xin; Yau, Shing-Tung; Gu, Xianfeng: Conformal spherical parametrization for high genus surfaces. *Commun. Inf. Syst.* 7 (2007), no. 3, 273–286.
- [312] Yau, Shing-Tung: The past, present and future of mathematics in China and India. *Math. Student* 76 (2007), no. 1-4, 103–128.
- [313] Yau, Shing-Tung; Yau, Stephen S.-T.: Real time solution of the nonlinear filtering problem without memory. II. *SIAM J. Control Optim.* 47 (2008), no. 1, 163–195.
- [314] Yau, Shing-Tung: Canonical metrics on complex manifold. *Sci. China Ser. A* 51 (2008), no. 4, 503–508.
- [315] Liu, KeFeng; Sun, XiaoFeng; Yau, Shing-Tung: New results on the geometry of the moduli space of Riemann surfaces. *Sci. China Ser. A* 51 (2008), no. 4, 632–651.
- [316] Finster, F.; Kamran, N.; Smoller, J.; Yau, S.-T.: Erratum: "Decay of solutions of the wave equation in the Kerr geometry" [*Comm. Math. Phys.* 264 (2006), no. 2, 465–503; MR2215614]. *Comm. Math. Phys.* 280 (2008), no. 2, 563–573.
- [317] Fu, Ji-Xiang; Yau, Shing-Tung: The theory of superstring with flux on non-Kähler manifolds and the complex Monge-Ampère equation. *J. Differential Geom.* 78 (2008), no. 3, 369–428.
- [318] Martelli, Dario; Sparks, James; Yau, Shing-Tung: Sasaki-Einstein manifolds and volume minimisation. *Comm. Math. Phys.* 280 (2008), no. 3, 611–673.
- [319] Beauville, Arnaud; Ji, Lizhen; Katzarkov, Ludmil; Liu, Kefeng; Tschinkel, Yuri; Yau, Shing-Tung: Preface to Bogomolov special issue. *Pure Appl. Math. Q.* 4 (2008), no. 2, i.

- [320] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Good geometry on the curve moduli. *Publ. Res. Inst. Math. Sci.* 44 (2008), no. 2, 699–724.
- [321] Beauville, Arnaud; Ji, Lizhen; Katzarkov, Ludmil; Liu, Kefeng; Tschinkel, Yuri; Yau, Shing-Tung: Preface to Bogomolov special issue. *Pure Appl. Math. Q.* 4 (2008), no. 3, i.
- [322] Becker, Melanie; Tseng, Li-Sheng; Yau, Shing-Tung: Heterotic Kähler/non-Kähler transitions. *Adv. Theor. Math. Phys.* 12 (2008), no. 5, 1147–1162.
- [323] Tosatti, Valentino; Weinkove, Ben; Yau, Shing-Tung: Taming symplectic forms and the Calabi-Yau equation. *Proc. Lond. Math. Soc.* (3) 97 (2008), no. 2, 401–424.
- [324] Gu, Xianfeng David; Yau, Shing-Tung: Computational conformal geometry. *Adv. Lect. Math. (ALM)*, 3 International Press, Somerville, MA Higher Education Press, Beijing, 2008, vi+295 pp. ISBN: 978-1-57146-171-1
- [325] Ji, Lizhen; Liu, Kefeng; Yau, Shing-Tung: Preface to the Serre issues [Special issue: in honor of Jean-Pierre Serre, Part 1 of 2]. *Pure Appl. Math. Q.* 4 (2008), no. 4, 1–2.
- [326] Chi, Chen-Yu; Yau, Shing-Tung: A geometric approach to problems in birational geometry. *Proc. Natl. Acad. Sci. USA* 105 (2008), no. 48, 18696–18701.
- [327] Yin, Xiaotian; Dai, Junfei; Yau, Shing-Tung; Gu, Xianfeng: Slit map: conformal parameterization for multiply connected surfaces. *Lecture Notes in Comput. Sci.*, 4975 Springer, Berlin, 2008, 410–422. ISBN: 978-3-540-79245-1; 3-540-79245-7
- [328] Gu, Xianfeng; Wang, Yalin; Cheng, Hsiao-Bing; Cheng, Li-Tien; Yau, Shing-Tung: Geometric methods in engineering applications. *Abel Symp.*, 3 Springer-Verlag, Berlin, 2008, 1–19. ISBN: 978-3-540-68848-8
- [329] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Geometry of moduli spaces. *Astérisque*(2008), no. 321, 31–50. ISBN: 978-285629-258-7
- [330] Lui, Lok Ming; Kwan, Jeffrey; Wang, Yalin; Yau, Shing-Tung: Computation of curvatures using conformal parameterization. *Commun. Inf. Syst.* 8 (2008), no. 1, 1–16.
- [331] Lui, Lok Ming; Gu, Xianfeng; Chan, Tony F.; Yau, Shing-Tung: Variational method on Riemann surfaces using conformal parameterization and its applications to image processing. *Methods Appl. Anal.* 15 (2008), no. 4, 513–538.
- [332] Zeng, Wei; Lui, Lok Ming; Gu, Xianfeng; Yau, Shing-Tung: Shape analysis by conformal modules. *Methods Appl. Anal.* 15 (2008), no. 4, 539–555.
- [333] Yau, S.-T.: Gap of the first two eigenvalues of the Schrödinger operator with nonconvex potential. *Mat. Contemp.* 35 (2008), 267–285.
- [334] Wang, Mu-Tao; Yau, Shing-Tung: Quasilocal mass in general relativity. *Phys. Rev. Lett.* 102 (2009), no. 2, no. 021101, 4 pp.
- [335] Grigorian, Sergey; Yau, Shing-Tung: Local geometry of the  $G_2$  moduli space. *Comm. Math. Phys.* 287 (2009), no. 2, 459–488.

- [336] Finster, F.; Kamran, N.; Smoller, J.; Yau, S.-T.: A rigorous treatment of energy extraction from a rotating black hole. *Comm. Math. Phys.* 287 (2009), no. 3, 829–847.
- [337] Wu, Damin; Yau, Shing-Tung; Zheng, Fangyang: A degenerate Monge-Ampère equation and the boundary classes of Kähler cones. *Math. Res. Lett.* 16 (2009), no. 2, 365–374.
- [338] Wang, Mu-Tao; Yau, Shing-Tung: Isometric embeddings into the Minkowski space and new quasi-local mass. *Comm. Math. Phys.* 288 (2009), no. 3, 919–942.
- [339] Ji, Lizhen; Liu, Kefeng; Yau, Shing-Tung: Preface [Special issue: In honor of Friedrich Hirzebruch, Part 1 of 2]. *Pure Appl. Math. Q.* 5 (2009), no. 2, i–ii.
- [340] Fu, Ji-Xiang; Tseng, Li-Sheng; Yau, Shing-Tung: Local heterotic torsional models. *Comm. Math. Phys.* 289 (2009), no. 3, 1151–1169.
- [341] Finster, Felix; Kamran, Niky; Smoller, Joel; Yau, Shing-Tung: Linear waves in the Kerr geometry: a mathematical voyage to black hole physics. *Bull. Amer. Math. Soc. (N.S.)* 46 (2009), no. 4, 635–659.
- [342] Yau, Shing-Tung: A survey of Calabi-Yau manifolds. *Surv. Differ. Geom.*, 13 International Press, Somerville, MA, 2009, 277–318. ISBN: 978-1-57146-138-4
- [343] Ji, Lizhen; Yau, Shing-Tung; Yu, Jiu-Kang: Preface [Special issue: In honor of John Tate, Part 1 of 2]. *Pure Appl. Math. Q.* 5 (2009), no. 4, 1195–1199.
- [344] Gu, Xianfeng David; Luo, Feng; Yau, Shing-Tung: Recent advances in computational conformal geometry. *Commun. Inf. Syst.* 9 (2009), no. 2, 163–195.
- [345] Jin, Miao; Zeng, Wei; Ding, Ning; Gu, Xianfeng; Yau, Shing-Tung: Computing Fenchel-Nielsen coordinates in Teichmüller shape space. *Commun. Inf. Syst.* 9 (2009), no. 2, 213–233.
- [346] Yau, Shing-Tung: A comparison between the introductions of mathematical talent in China's late Qing dynasty and Japan's Meiji restoration period. *J. Northwest Univ. Nat. Sci.* 39 (2009), no. 5, 721–725.
- [347] Jost, Jürgen; Yau, Shing-Tung: Harmonic mappings and moduli spaces of Riemann surfaces. *Surv. Differ. Geom.*, 14 International Press, Somerville, MA, 2009, 171–196. ISBN: 978-1-57146-140-7
- [348] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Recent development on the geometry of the Teichmüller and moduli spaces of Riemann surfaces. *Surv. Differ. Geom.*, 14 International Press, Somerville, MA, 2009, 221–259. ISBN: 978-1-57146-140-7
- [349] Becker, Melanie; Tseng, Li-Sheng; Yau, Shing-Tung: New heterotic non-Kähler geometries. *Adv. Theor. Math. Phys.* 13 (2009), no. 6, 1815–1845.
- [350] Luo, Wei; Dai, Junfei; Gu, Xianfeng; Yau, Shing-Tung: Numerical conformal mapping of multiply connected domains to regions with circular boundaries. *J. Comput. Appl. Math.* 233 (2010), no. 11, 2940–2947.
- [351] Wang, Mu-Tao; Yau, Shing-Tung: Limit of quasilocal mass at spatial infinity. *Comm. Math. Phys.* 296 (2010), no. 1, 271–283.

- [352] Yau, Shing-Tung: Metrics on complex manifolds. *Sci. China Math.* 53 (2010), no. 3, 565–572.
- [353] Lin, Yong; Yau, Shing-Tung: Ricci curvature and eigenvalue estimate on locally finite graphs. *Math. Res. Lett.* 17 (2010), no. 2, 343–356.
- [354] Lin, Yong; Lippner, Gábor; Mangoubi, Dan; Yau, Shing-Tung: Nodal geometry of graphs on surfaces. *Discrete Contin. Dyn. Syst.* 28 (2010), no. 3, 1291–1298.
- [355] Lui, Lok Ming; Wong, Tsz Wai; Zeng, Wei; Gu, Xianfeng; Thompson, Paul M.; Chan, Tony F.; Yau, Shing Tung: Detection of shape deformities using Yamabe flow and Beltrami coefficients. *Inverse Probl. Imaging* 4 (2010), no. 2, 311–333.
- [356] Leung, Naichung Conan; Yau, Shing-Tung: Mirror symmetry of Fourier-Mukai transformation for elliptic Calabi-Yau manifolds. Oxford University Press, Oxford, 2010, 299–323. ISBN: 978-0-19-953492-0
- [357] Yau, Shing-Tung; Nadis, Steve: The shape of inner space. Basic Books, New York, 2010, xx+377 pp. ISBN: 978-0-465-02023-2
- [358] Burns, Daniel; Ji, Lizhen; Liu, Kefeng; Ranicki, Andrew; Yau, Shing-Tung: Preface to Atiyah-Singer Special Issue. *Pure Appl. Math. Q.* 6 (2010), no. 2, 1–3.
- [359] Gu, David Xianfeng; Luo, Feng; Yau, Shing-Tung: Fundamentals of computational conformal geometry. *Math. Comput. Sci.* 4 (2010), no. 4, 389–429.
- [360] Yau, Shing-Tung: Quasi-local mass in general relativity. *Surv. Differ. Geom.*, 15 International Press, Somerville, MA, 2011, 421–433. ISBN: 978-1-57146-145-2
- [361] Fu, Jixiang; Yau, Shing-Tung: A note on small deformations of balanced manifolds. *C. R. Math. Acad. Sci. Paris* 349 (2011), no. 13-14, 793–796.
- [362] Chen, PoNing; Wang, Mu-Tao; Yau, Shing-Tung: Evaluating quasilocal energy and solving optimal embedding equation at null infinity. *Comm. Math. Phys.* 308 (2011), no. 3, 845–863.
- [363] Yau, Shing-Tung; Nadis, Steve: String theory and the geometry of the universe's hidden dimensions. *Notices Amer. Math. Soc.* 58 (2011), no. 8, 1067–1076.
- [364] Gu, Xianfeng David; Zeng, Wei; Luo, Feng; Yau, Shing-Tung: Numerical computation of surface conformal mappings. *Comput. Methods Funct. Theory* 11 (2011), no. 2, 747–787.
- [365] Lin, Yong; Lu, Linyuan; Yau, Shing-Tung: Ricci curvature of graphs. *Tohoku Math. J. (2)* 63 (2011), no. 4, 605–627.
- [366] Yau, Shing-Tung: Perspectives on geometric analysis. *Adv. Lect. Math. (ALM)*, 18 International Press, Somerville, MA, 2011, 417–520. ISBN: 978-1-57146-225-1
- [367] Yau, Shing-Tung: A survey of Calabi-Yau manifolds. *Adv. Lect. Math. (ALM)*, 18 International Press, Somerville, MA, 2011, 521–563. ISBN: 978-1-57146-225-1

- [368] Yau, Shing-Tung: A survey of geometric structure in geometric analysis. *Surv. Differ. Geom.*, 16 International Press, Somerville, MA, 2011, 325–347. ISBN: 978-1-57146-211-4
- [369] Sun, Xiaofeng; Yau, Shing-Tung: Deformation of Kähler-Einstein metrics. *Adv. Lect. Math. (ALM)*, 20 International Press, Somerville, MA, 2011, 467–489. ISBN: 978-1-57146-230-5
- [370] Esnault, Hélène; Li, Jun; Yau, Shing-Tung: Preface [Special issue: In memory of Eckart Viehweg]. *Pure Appl. Math. Q.* 7 (2011), no. 4, front matter.
- [371] Liu, Kefeng; Todorov, Andrey; Yau, Shing-Tung; Zuo, Kang: Finiteness of subfamilies of Calabi-Yau  $n$ -folds over curves with maximal length of Yukawa-coupling. *Pure Appl. Math. Q.* 7 (2011), no. 4, 1585–1598.
- [372] Bieri, Lydia; Chen, PoNing; Yau, Shing-Tung: Null asymptotics of solutions of the Einstein-Maxwell equations in general relativity and gravitational radiation. *Adv. Theor. Math. Phys.* 15 (2011), no. 4, 1085–1113.
- [373] Yau, Shing-Tung: Chern's work in geometry. International Press, Somerville, MA, 2011, 25–37. ISBN: 978-1-57146-123-0
- [374] Yau, Shing-Tung; Ji, Lizhen: A child prodigy and a master: Norbert Wiener. International Press, Somerville, MA, 2011, 139–144. ISBN: 978-1-57146-123-0
- [375] Wong, Pit-Mann; Wu, Damin; Yau, Shing-Tung: Picard number, holomorphic sectional curvature, and ampleness. *Proc. Amer. Math. Soc.* 140 (2012), no. 2, 621–626.
- [376] Lui, Lok Ming; Wong, Tsz Wai; Zeng, Wei; Gu, Xianfeng; Thompson, Paul M.; Chan, Tony F.; Yau, Shing-Tung: Optimization of surface registrations using Beltrami holomorphic flow. *J. Sci. Comput.* 50 (2012), no. 3, 557–585.
- [377] Fu, Jixiang; Li, Jun; Yau, Shing-Tung: Balanced metrics on non-Kähler Calabi-Yau threefolds. *J. Differential Geom.* 90 (2012), no. 1, 81–129.
- [378] Lui, Lok Ming; Wong, Tsz Wai; Zeng, Wei; Gu, Xianfeng; Thompson, Paul M.; Chan, Tony F.; Yau, Shing-Tung: Erratum to: Optimization of surface registrations using Beltrami holomorphic flow [MR2886341]. *J. Sci. Comput.* 51 (2012), no. 1, 258.
- [379] Lin, Yong; Lippner, Gábor; Yau, Shing-Tung: Quantum tunneling on graphs. *Comm. Math. Phys.* 311 (2012), no. 1, 113–132.
- [380] Tsai, Chung-Jun; Tseng, Li-Sheng; Yau, Shing-Tung: Symplectic cohomologies on phase space. *J. Math. Phys.* 53 (2012), no. 9, 095217, 9 pp.
- [381] Gu, David Xianfeng; Zeng, Wei; Lui, Lok Ming; Luo, Feng; Yau, Shing-Tung: Recent development of computational conformal geometry. *AMS/IP Stud. Adv. Math.*, 51, pt. 1, 2 American Mathematical Society, Providence, RI, 2012, 515–560. ISBN: 978-0-8218-7555-1; 2 volume set
- [382] Lui, Lok Ming; Wong, Tsz Wai; Zeng, Wei; Gu, Xianfeng; Thompson, Paul M.; Chan, Tony F.; Yau, Shing-Tung: A survey on recent development in computational quasi-conformal geometry and its applications. *AMS/IP Stud. Adv. Math.*, 51, pt. 1, 2 American Mathematical Society, Providence, RI, 2012, 697–717. ISBN: 978-0-8218-7555-1; 2 volume set



- [383] Zeng, Wei; Lui, Lok Ming; Luo, Feng; Chan, Tony Fan-Cheong; Yau, Shing-Tung; Gu, David Xianfeng: Computing quasiconformal maps using an auxiliary metric and discrete curvature flow. *Numer. Math.* 121 (2012), no. 4, 671–703.
- [384] Gu, Xianfeng; Zeng, Wei; Luo, Feng; Yau, Shing-Tung: Discrete Ricci flow for surface and 3-manifold. CRC Press, Boca Raton, FL, 2012, 167–208. ISBN: 978-1-4398-7109-6
- [385] Li, Si; Lian, Bong H.; Yau, Shing-Tung: Picard-Fuchs equations for relative periods and Abel-Jacobi map for Calabi-Yau hypersurfaces. *Amer. J. Math.* 134 (2012), no. 5, 1345–1384.
- [386] Tseng, Li-Sheng; Yau, Shing-Tung: Cohomology and Hodge theory on symplectic manifolds: I. *J. Differential Geom.* 91 (2012), no. 3, 383–416.
- [387] Tseng, Li-Sheng; Yau, Shing-Tung: Cohomology and Hodge theory on symplectic manifolds: II. *J. Differential Geom.* 91 (2012), no. 3, 417–443.
- [388] Tseng, Li-Sheng; Yau, Shing-Tung: Non-Kähler Calabi-Yau manifolds. *Proc. Sympos. Pure Math.*, 85 American Mathematical Society, Providence, RI, 2012, 241–254. ISBN: 978-0-8218-7295-6
- [389] Bieri, Lydia; Chen, PoNing; Yau, Shing-Tung: The electromagnetic Christodoulou memory effect and its application to neutron star binary mergers. *Classical Quantum Gravity* 29 (2012), no. 21, 215003, 17 pp.
- [390] Xu, Hao; Yau, Shing-Tung: Nodal domain and eigenvalue multiplicity of graphs. *J. Comb.* 3 (2012), no. 4, 609–622.
- [391] Yau, Shing-Tung: Geometry of singular space. *Comm. Anal. Geom.* 20 (2012), no. 5, 1097–1134.
- [392] Yau, Shing-Tung: Topics on geometric analysis. *Surv. Differ. Geom.*, 17 International Press, Boston, MA, 2012, 459–473. ISBN: 978-1-57146-237-4
- [393] Scherfner, Mike; Weiss, Simon; Yau, Shing-Tung: A review of the Chern conjecture for isoparametric hypersurfaces in spheres. *Adv. Lect. Math. (ALM)*, 21 International Press, Somerville, MA, 2012, 175–187. ISBN: 978-1-57146-248-0
- [394] Lee, Tsung-Lin; Lin, Song-Sun; Lin, Wen-Wei; Yau, Shing-Tung; Zhu, Jubo: Polynomial calculations in Doppler tracking. *Commun. Inf. Syst.* 12 (2012), no. 2, 157–184.
- [395] Xu, Hao; Yau, Shing-Tung: Discrete Green's functions and random walks on graphs. *J. Combin. Theory Ser. A* 120 (2013), no. 2, 483–499.
- [396] Lian, Bong H.; Yau, Shing-Tung: Period integrals of CY and general type complete intersections. *Invent. Math.* 191 (2013), no. 1, 35–89.
- [397] Lian, Bong H.; Song, Ruifang; Yau, Shing-Tung: Periodic integrals and tautological systems. *J. Eur. Math. Soc. (JEMS)* 15 (2013), no. 4, 1457–1483.
- [398] Xu, Hao; Yau, Shing-Tung: Trees and tensors on Kähler manifolds. *Ann. Global Anal. Geom.* 44 (2013), no. 2, 151–168.

- [399] Lin, Hai; Yau, Shing-Tung: On exotic sphere fibrations, topological phases, and edge states in physical systems. *Internat. J. Modern Phys. B* 27 (2013), no. 19, 1350107, 20 pp.
- [400] Nadis, Steve; Yau, Shing-Tung: *A history in sum*. Harvard University Press, Cambridge, MA, 2013, xx+249 pp. ISBN: 978-0-674-72500-3
- [401] Zeng, Wei; Shi, Rui; Wang, Yalin; Yau, Shing-Tung; Gu, Xianfeng; Alzheimer's Disease Neuroimaging Initiative: Teichmüller shape descriptor and its application to Alzheimer's disease study. *Int. J. Comput. Vis.* 105 (2013), no. 2, 155–170.
- [402] Ejaz, Asiya; Gohar, H.; Lin, Hai; Saifullah, K.; Yau, Shing-Tung: Quantum tunneling from three-dimensional black holes. *Phys. Lett. B* 726 (2013), no. 4-5, 827–833.
- [403] Dai, Junfei; Luo, Wei; Zhang, Min; Gu, Xianfeng; Yau, Shing-Tung: Visualization of 2-dimensional Ricci flow. *Pure Appl. Math. Q.* 9 (2013), no. 3, 417–435.
- [404] Yau, Shing-Tung: On the Willmore conjecture for surfaces. *ICCM Not.* 1 (2013), no. 1, 14–17.
- [405] Yau, Shing-Tung: My appreciation of geometry. *ICCM Not.* 1 (2013), no. 1, 20–35.
- [406] Yau, Shing-Tung: Comparison of Chinese and Japanese developments in mathematics during the late 19th and early 20th centuries. *ICCM Not.* 1 (2013), no. 1, 68–76.
- [407] Yau, Shing-Tung: A note on the distribution of critical points of eigenfunctions. *Surv. Mod. Math.*, 6 International Press, Somerville, MA, 2013, 379–381. ISBN: 978-1-57146-278-7
- [408] Yau, Shing-Tung: Sobolev inequality for measure space. *Surv. Mod. Math.*, 6 International Press, Somerville, MA, 2013, 383–396. ISBN: 978-1-57146-278-7
- [409] Yau, Shing-Tung; Ma, Hui; Tsai, Chung-Jun; Wang, Mu-Tao; Zhao, En-Tao: Open problems in differential geometry. *Surv. Mod. Math.*, 6 International Press, Somerville, MA, 2013, 397–477. ISBN: 978-1-57146-278-7
- [410] Esole, Mboyo; Yau, Shing-Tung: Small resolutions of  $SU(5)$ -models in F-theory. *Adv. Theor. Math. Phys.* 17 (2013), no. 6, 1195–1253.
- [411] Yau, Shing-Tung: Structure of manifolds with positive curvature based on geometric analysis. *ICCM Not.* 1 (2013), no. 2, 24–28.
- [412] Yau, Shing-Tung: The past, present and future of mathematics in China and India. *ICCM Not.* 1 (2013), no. 2, 95–108.
- [413] Yau, Shing-Tung: In memory of Professor Shoshichi Kobayashi. *ICCM Not.* 1 (2013), no. 2, 139–140.
- [414] Lui, Lok Ming; Lam, Ka Chun; Yau, Shing-Tung; Gu, Xianfeng: Teichmüller mapping (T-map) and its applications to landmark matching registration. *SIAM J. Imaging Sci.* 7 (2014), no. 1, 391–426.

- [415] Chung, Fan; Lin, Yong; Yau, S.-T.: Harnack inequalities for graphs with non-negative Ricci curvature. *J. Math. Anal. Appl.* 415 (2014), no. 1, 25–32.
- [416] Tseng, Li-Sheng; Yau, Shing-Tung: Generalized cohomologies and supersymmetry. *Comm. Math. Phys.* 326 (2014), no. 3, 875–885.
- [417] Miller, Warner A.; McDonald, Jonathan R.; Alsing, Paul M.; Gu, David X.; Yau, Shing-Tung: Simplicial Ricci flow. *Comm. Math. Phys.* 329 (2014), no. 2, 579–608.
- [418] Grigor'yan, A.; Muranov, Yu. V.; Yau, Shing-Tung: Graphs associated with simplicial complexes. *Homology Homotopy Appl.* 16 (2014), no. 1, 295–311.
- [419] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Minimizing properties of critical points of quasi-local energy. *Comm. Math. Phys.* 329 (2014), no. 3, 919–935.
- [420] Bloch, Spencer; Huang, An; Lian, Bong H.; Srinivas, Vasudevan; Yau, Shing-Tung: On the holonomic rank problem. *J. Differential Geom.* 97 (2014), no. 1, 11–35.
- [421] Yau, Shing-Tung: Mathematics: its content, methods, and meaning. *ICCM Not.* 2 (2014), no. 1, 1–5.
- [422] Yau, Shing-Tung; Nadis, Steve: Raoul Bott at Harvard. *ICCM Not.* 2 (2014), no. 1, 87–92.
- [423] Yau, Shing-Tung; Zhang, Yi: The geometry on smooth toroidal compactifications of Siegel varieties. *Amer. J. Math.* 136 (2014), no. 4, 859–941.
- [424] Lin, Yong; Lu, Linyuan; Yau, S.-T.: Ricci-flat graphs with girth at least five. *Comm. Anal. Geom.* 22 (2014), no. 4, 671–687.
- [425] Liu, Kefeng; Sun, Xiaofeng; Yau, Shing-Tung: Goodness of canonical metrics on the moduli space of Riemann surfaces. *Pure Appl. Math. Q.* 10 (2014), no. 2, 223–243.
- [426] Huang, Wei-Qiang; Gu, Xianfeng David; Lin, Wen-Wei; Yau, Shing-Tung: A novel symmetric skew-Hamiltonian isotropic Lanczos algorithm for spectral conformal parameterizations. *J. Sci. Comput.* 61 (2014), no. 3, 558–583.
- [427] Alim, Murad; Scheidegger, Emanuel; Yau, Shing-Tung; Zhou, Jie: Special polynomial rings, quasi modular forms and duality of topological strings. *Adv. Theor. Math. Phys.* 18 (2014), no. 2, 401–467.
- [428] Kuo, Yueh-Cheng; Lin, Wen-Wei; Yau, Shing-Tung: A novel efficient homotopy continuation method in tracking. *Commun. Inf. Syst.* 14 (2014), no. 1, 57–78.
- [429] Yueh, Mei-Heng; Lin, Wen-Wei; Yau, Shing-Tung: An efficient algorithm of Yau-Yau method for solving nonlinear filtering problems. *Commun. Inf. Syst.* 14 (2014), no. 2, 111–134.
- [430] Xu, Hao; Yau, Shing-Tung: An explicit formula of hitting times for random walks on graphs. *Pure Appl. Math. Q.* 10 (2014), no. 3, 567–581.
- [431] Heckman, Jonathan J.; Lin, Hai; Yau, Shing-Tung: Building blocks for generalized heterotic/F-theory duality. *Adv. Theor. Math. Phys.* 18 (2014), no. 6, 1463–1503.

- [432] Yau, Shing-Tung: Selected expository works of Shing-Tung Yau with commentary. Vol. I. Adv. Lect. Math. (ALM), 28 International Press, Somerville, MA Higher Education Press, Beijing, 2014, xxxii+703 pp. ISBN: 978-1-57146-293-0; 1-57146-293-7
- [433] Yau, Shing-Tung: Selected expository works of Shing-Tung Yau with commentary. Vol. II. Adv. Lect. Math. (ALM), 29 International Press, Somerville, MA Higher Education Press, Beijing, 2014, pp. i–xxxii and 705–1354. ISBN: 978-1-57146-294-7; 1-57146-294-5
- [434] Grigor'yan, Alexander; Lin, Yong; Muranov, Yuri; Yau, Shing-Tung: Homotopy theory for digraphs. Pure Appl. Math. Q. 10 (2014), no. 4, 619–674.
- [435] Yueh, Mei-Heng; Lin, Wen-Wei; Yau, Shing-Tung: An efficient numerical method for solving high-dimensional nonlinear filtering problems. Commun. Inf. Syst. 14 (2014), no. 4, 243–262.
- [436] Huang, Wei-Qiang; Gu, Xianfeng David; Huang, Tsung-Ming; Lin, Song-Sun; Lin, Wen-Wei; Yau, Shing-Tung: High performance computing for spherical conformal and Riemann mappings. Geom. Imaging Comput. 1 (2014), no. 2, 223–258.
- [437] Alsing, Paul M.; Miller, Warner A.; Corne, Matthew; Gu, David; Lloyd, Seth; Ray, Shannon; Yau, Shing-Tung: Simplicial Ricci flow: an example of a neck pinch singularity in 3D. Geom. Imaging Comput. 1 (2014), no. 3, 303–331.
- [438] Chang, Xiao; Xu, Hao; Yau, Shing-Tung: Spanning trees and random walks on weighted graphs. Pacific J. Math. 273 (2015), no. 1, 241–255.
- [439] Bauer, Frank; Horn, Paul; Lin, Yong; Lippner, Gabor; Mangoubi, Dan; Yau, Shing-Tung: Li-Yau inequality on graphs. J. Differential Geom. 99 (2015), no. 3, 359–405.
- [440] Lin, Hai; Saifullah, K.; Yau, Shing-Tung: Accelerating black holes, spin-32 fields and C-metric. Modern Phys. Lett. A 30 (2015), no. 8, 1550044, 17 pp.
- [441] Fu, Jixiang; Yau, Shing-Tung; Zhou, Wubin: Complete cscK metrics on the local models of the conifold transition. Comm. Math. Phys. 335 (2015), no. 3, 1215–1233.
- [442] Gao, Peng; He, Yang-Hui; Yau, Shing-Tung: Extremal bundles on Calabi-Yau threefolds. Comm. Math. Phys. 336 (2015), no. 3, 1167–1200.
- [443] Yau, Shing-Tung: On the pseudonorm project of birational classification of algebraic varieties. Progr. Math., 308 Birkhäuser/Springer, Cham, 2015, 327–339. ISBN: 978-3-319-11522-1; 978-3-319-11523-8
- [444] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Conserved quantities in general relativity: from the quasi-local level to spatial infinity. Comm. Math. Phys. 338 (2015), no. 1, 31–80.
- [445] Luo, Xue; Yau, Shing-Tung; Yau, Stephen S.-T.: Time-dependent Hermite-Galerkin spectral method and its applications. Appl. Math. Comput. 264 (2015), 378–391.
- [446] Fei, Teng; Yau, Shing-Tung: Invariant solutions to the Strominger system on complex Lie groups and their quotients. Comm. Math. Phys. 338 (2015), no. 3, 1183–1195.
- [447] Lui, Lok Ming; Gu, Xianfeng; Yau, Shing-Tung: Convergence of an iterative algorithm for Teichmüller maps via harmonic energy optimization. Math. Comp. 84 (2015), no. 296, 2823–2842.

- [448] Yau, Shing-Tung: Geometry of singular space. *Adv. Lect. Math. (ALM)*, 31 International Press, Somerville, MA, 2015, 3–32. ISBN: 978-1-57146-300-5
- [449] Lau, Siu-Cheong; Tseng, Li-Sheng; Yau, Shing-Tung: Non-Kähler SYZ mirror symmetry. *Comm. Math. Phys.* 340 (2015), no. 1, 145–170.
- [450] Esole, Mboyo; Fullwood, James; Yau, Shing-Tung: D5 elliptic fibrations: non-Kodaira fibers and new orientifold limits of F-theory. *Commun. Number Theory Phys.* 9 (2015), no. 3, 583–642.
- [451] Ray, Shannon; Miller, Warner A.; Alsing, Paul M.; Yau, Shing-Tung: Adiabatic isometric mapping algorithm for embedding 2-surfaces in Euclidean 3-space. *Classical Quantum Gravity* 32 (2015), no. 23, 235012, 17 pp.
- [452] Huang, An; Yau, Shing-Tung: On cohomology theory of (di)graphs. *Homology Homotopy Appl.* 17 (2015), no. 2, 383–398.
- [453] Grigor'yan, Alexander; Lin, Yong; Muranov, Yuri; Yau, Shing-Tung: Cohomology of digraphs and (undirected) graphs. *Asian J. Math.* 19 (2015), no. 5, 887–931.
- [454] Bauer, Frank; Hua, Bobo; Yau, Shing-Tung: Davies-Gaffney-Grigor'yan lemma on graphs. *Comm. Anal. Geom.* 23 (2015), no. 5, 1031–1068.
- [455] Bieri, Lydia; Garfinkle, David; Yau, Shing-Tung: Gravitational waves and their memory in general relativity. *Surv. Differ. Geom.*, 20 International Press, Boston, MA, 2015, 75–97. ISBN: 978-1-57146-308-1
- [456] Yau, Shing-Tung: A brief history of Kähler geometry. *ICCM Not.* 3 (2015), no. 2, 1–19.
- [457] Esole, Mboyo; Shao, Shu-Heng; Yau, Shing-Tung: Singularities and gauge theory phases. *Adv. Theor. Math. Phys.* 19 (2015), no. 6, 1183–1247.
- [458] Ji, Lizhen; van der Geer, Gerard; Yau, Shing-Tung: Preface [Special issue: in honor of Eduard Looijenga, Part 1 of 3]. *Pure Appl. Math. Q.* 11 (2015), no. 4, i.
- [459] Chen, Po-Ning; Huang, Lan-Hsuan; Wang, Mu-Tao; Yau, Shing-Tung: On the validity of the definition of angular momentum in general relativity. *Ann. Henri Poincaré* 17 (2016), no. 2, 253–270.
- [460] Gu, Xianfeng; Luo, Feng; Sun, Jian; Yau, Shing-Tung: Variational principles for Minkowski type problems, discrete optimal transport, and discrete Monge-Ampere equations. *Asian J. Math.* 20 (2016), no. 2, 383–398.
- [461] Tsai, Chung-Jun; Tseng, Li-Sheng; Yau, Shing-Tung: Cohomology and Hodge theory on symplectic manifolds: III. *J. Differential Geom.* 103 (2016), no. 1, 83–143.
- [462] Wu, Damin; Yau, Shing-Tung: Negative holomorphic curvature and positive canonical bundle. *Invent. Math.* 204 (2016), no. 2, 595–604.
- [463] Alim, Murad; Yau, Shing-Tung; Zhou, Jie: Airy equation for the topological string partition function in a scaling limit. *Lett. Math. Phys.* 106 (2016), no. 6, 719–729.

- [464] Alim, Murad; Movasati, Hossein; Scheidegger, Emanuel; Yau, Shing-Tung: Gauss-Manin connection in disguise: Calabi-Yau threefolds. *Comm. Math. Phys.* 344 (2016), no. 3, 889–914.
- [465] Grigor'yan, Alexander; Muranov, Yuri; Yau, Shing-Tung: On a cohomology of digraphs and Hochschild cohomology. *J. Homotopy Relat. Struct.* 11 (2016), no. 2, 209–230.
- [466] Lin, Hai; Wu, Baosen; Yau, Shing-Tung: Heterotic string compactification and new vector bundles. *Comm. Math. Phys.* 345 (2016), no. 2, 457–475.
- [467] Fu, Jixiang; Yau, Shing-Tung; Zhou, Wubin: On complete constant scalar curvature Kähler metrics with Poincaré-Mok-Yau asymptotic property. *Comm. Anal. Geom.* 24 (2016), no. 3, 521–557.
- [468] Ji, Lizhen; Yau, Shing-Tung: What one should know about Riemann but may not know?. *Adv. Lect. Math. (ALM)*, 35.1 International Press, Somerville, MA, 2016, 1–55. ISBN: 978-1-57146-318-0; 978-1-57146-316-6
- [469] Yau, Shing-Tung: Geometry of space, physics and analysis. *ICCM Not.* 4 (2016), no. 1, 1–8.
- [470] Yau, Shing-Tung: From Riemann and Kodaira to modern developments on complex manifolds. *Jpn. J. Math.* 11 (2016), no. 2, 265–303.
- [471] Wu, Damin; Yau, Shing-Tung: A remark on our paper "Negative holomorphic curvature and positive canonical bundle" [MR3489705]. *Comm. Anal. Geom.* 24 (2016), no. 4, 901–912.
- [472] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Quasilocal angular momentum and center of mass in general relativity. *Adv. Theor. Math. Phys.* 20 (2016), no. 4, 671–682.
- [473] Esole, Mboyo; Shao, Shu-Heng; Yau, Shing-Tung: Singularities and gauge theory phases II. *Adv. Theor. Math. Phys.* 20 (2016), no. 4, 683–749.
- [474] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Conserved quantities on asymptotically hyperbolic initial data sets. *Adv. Theor. Math. Phys.* 20 (2016), no. 6, 1337–1375.
- [475] Huang, An; Lian, Bong H.; Yau, Shing-Tung; Zhu, Xinwen: Chain integral solutions to tautological systems. *Math. Res. Lett.* 23 (2016), no. 6, 1721–1736.
- [476] Hod, Rani; Huang, An; Kempton, Mark; Yau, Shing-Tung: Strong embeddings and 2-isomorphism. *ICCM Not.* 4 (2016), no. 2, 5–13.
- [477] Bieri, Lydia; Garfinkle, David; Yau, Shing-Tung: Gravitational wave memory in de Sitter spacetime. *Phys. Rev. D* 94 (2016), no. 6, 064040, 7 pp.
- [478] Grigor'yan, A. A.; Lin, Ĩong; Muranov, Yu. V.; Yau, Shintan: Path complexes and their homologies. *Fundam. Prikl. Mat.* 21 (2016), no. 5, 79–128. *J. Math. Sci. (N.Y.)* 248 (2020), no. 5, 564–599.
- [479] Chen, Po-Ning; Hung, Pei-Ken; Wang, Mu-Tao; Yau, Shing-Tung: The rest mass of an asymptotically anti-de Sitter spacetime. *Ann. Henri Poincaré* 18 (2017), no. 5, 1493–1518.

- [480] Chen, Bingyi; Xie, Dan; Yau, Shing-Tung; Yau, Stephen S.-T.; Zuo, Huaqing: 4d  $N=2$  SCFT and singularity theory Part II: complete intersection. *Adv. Theor. Math. Phys.* 21 (2017), no. 1, 121–145.
- [481] Bauer, Frank; Hua, Bobo; Yau, Shing-Tung: Sharp Davies-Gaffney-Grigor'yan lemma on graphs. *Math. Ann.* 368 (2017), no. 3-4, 1429–1437.
- [482] Kempton, Mark; Lippner, Gabor; Yau, Shing-Tung: Pretty good quantum state transfer in symmetric spin networks via magnetic field. *Quantum Inf. Process.* 16 (2017), no. 9, Paper No. 210, 23 pp.
- [483] Xie, Dan; Yau, Shing-Tung: Three dimensional canonical singularity and five dimensional  $N=1$  SCFT. *J. High Energy Phys.*(2017), no. 6, 134, front matter+33 pp.
- [484] Putrov, Pavel; Wang, Juven; Yau, Shing-Tung: Braiding statistics and link invariants of bosonic/fermionic topological quantum matter in  $2+1$  and  $3+1$  dimensions. *Ann. Physics* 384 (2017), 254–287.
- [485] Jacob, Adam; Yau, Shing-Tung: A special Lagrangian type equation for holomorphic line bundles. *Math. Ann.* 369 (2017), no. 1-2, 869–898.
- [486] Wang, Yifan; Xie, Dan; Yau, Stephen S.-T.; Yau, Shing-Tung: 4d  $N=2$  SCFT from complete intersection singularity. *Adv. Theor. Math. Phys.* 21 (2017), no. 3, 801–855.
- [487] Gu, David Xianfeng; Zeng, Wei; Lui, Lok Ming; Luo, Feng; Yau, Shing-Tung: Discrete surface Ricci flow. *Adv. Lect. Math. (ALM)*, 37 International Press, Somerville, MA, 2017, 477–504. ISBN: 978-1-57146-349-4
- [488] Lui, Lok Ming; Gu, David Xianfeng; Zeng, Wei; Yau, Shing-Tung: Beltrami representation for diffeomorphisms and its applications. *Adv. Lect. Math. (ALM)*, 37 International Press, Somerville, MA, 2017, 523–552. ISBN: 978-1-57146-349-4
- [489] Chung, Fan; Yau, Shing-Tung: A strong Harnack inequality for graphs. *Comm. Anal. Geom.* 25 (2017), no. 3, 557–588.
- [490] Yueh, Mei-Heng; Lin, Wen-Wei; Wu, Chin-Tien; Yau, Shing-Tung: An efficient energy minimization for conformal parameterizations. *J. Sci. Comput.* 73 (2017), no. 1, 203–227.
- [491] Gao, Peng; Yau, Shing-Tung; Zhou, Wubin: Nonexistence for complete Kähler-Einstein metrics on some noncompact manifolds. *Math. Ann.* 369 (2017), no. 3-4, 1271–1282.
- [492] Yau, Shing-Tung: From Riemann and Kodaira to modern developments on complex manifolds. *ICCM Not.* 5 (2017), no. 1, 1–21.
- [493] Kempton, Mark; Lippner, Gabor; Yau, Shing-Tung: Perfect state transfer on graphs with a potential. *Quantum Inf. Comput.* 17 (2017), no. 3-4, 303–327.
- [494] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Quasi-local mass at the null infinity of the Vaidya spacetime. *Harv. Univ. Cent. Math. Sci. Appl. Ser. Math.*, 1 International Press, Somerville, MA, 2017, 33–48. ISBN: 978-1-57146-344-9

- [495] Haghghat, Babak; Movasati, Hossein; Yau, Shing-Tung: Calabi-Yau modular forms in limit: elliptic fibrations. *Commun. Number Theory Phys.* 11 (2017), no. 4, 879–912.
- [496] Grigor'yan, Alexander; Muranov, Yuri; Yau, Shing-Tung: Homologies of digraphs and Künneth formulas. *Comm. Anal. Geom.* 25 (2017), no. 5, 969–1018.
- [497] Yau, Shing-Tung: Geometry and physics. *ICCM Not.* 5 (2017), no. 2, 1–7.
- [498] Liu, Kefeng; Sun, Xiaofeng; Yang, Xiaokui; Yau, Shing-Tung: Curvatures of moduli space of curves and applications. *Asian J. Math.* 21 (2017), no. 5, 841–854.
- [499] Gukov, Sergei; Liu, Chiu-Chu Melissa; Sheshmani, Artan; Yau, Shing-Tung: On topological approach to local theory of surfaces in Calabi-Yau threefolds. *Adv. Theor. Math. Phys.* 21 (2017), no. 7, 1679–1728.
- [500] Miller, Warner A.; Ray, Shannon; Wang, Mu-Tao; Yau, Shing-Tung: Wang and Yau's quasi-local energy for an extreme Kerr spacetime. *Classical Quantum Gravity* 35 (2018), no. 5, 055007, 19 pp.
- [501] Haghghat, Babak; Yan, Wenbin; Yau, Shing-Tung: ADE string chains and mirror symmetry. *J. High Energy Phys.*(2018), no. 1, 043, front matter+29 pp.
- [502] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Evaluating small sphere limit of the Wang-Yau quasi-local energy. *Comm. Math. Phys.* 357 (2018), no. 2, 731–774.
- [503] Alsing, Paul M.; Miller, Warner A.; Yau, Shing-Tung: A realization of Thurston's geometrization: discrete Ricci flow with surgery. *Ann. Math. Sci. Appl.* 3 (2018), no. 1, 31–45.
- [504] Wang, Juven; Ohmori, Kantaro; Putrov, Pavel; Zheng, Yunqin; Wan, Zheyang; Guo, Meng; Lin, Hai; Gao, Peng; Yau, Shing-Tung: Tunneling topological vacua via extended operators: (Spin-)TQFT spectra and boundary deconfinement in various dimensions. *PTEP. Prog. Theor. Exp. Phys.*(2018), no. 5, 053A01, 54 pp.
- [505] Grigor'yan, Alexander; Jimenez, Rolando; Muranov, Yuri; Yau, Shing-Tung: On the path homology theory of digraphs and Eilenberg-Steenrod axioms. *Homology Homotopy Appl.* 20 (2018), no. 2, 179–205.
- [506] Bray, Hubert L.; Minicozzi, William P., II; Eichmair, Michael; Huang, Lan-Hsuan; Yau, Shing-Tung; Uhlenbeck, Karen; Kusner, Rob; Codá Marques, Fernando; Mese, Chikako; Fraser, Ailana: The mathematics of Richard Schoen. *Notices Amer. Math. Soc.* 65 (2018), no. 11, 1349–1376.
- [507] He, Yang-Hui; Seong, Rak-Kyeong; Yau, Shing-Tung: Calabi-Yau volumes and reflexive polytopes. *Comm. Math. Phys.* 361 (2018), no. 1, 155–204.
- [508] Huang, An; Lian, Bong; Yau, Shing-Tung; Yu, Chenglong: Period integrals and tautological systems. *Surv. Differ. Geom.*, 22 International Press, Somerville, MA, 2018, 275–289. ISBN: 978-1-57146-361-6
- [509] Grigor'yan, Alexander; Muranov, Yuri; Vershinin, Vladimir; Yau, Shing-Tung: Path homology theory of multigraphs and quivers. *Forum Math.* 30 (2018), no. 5, 1319–1337.



- [510] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Quasi-local energy with respect to a static spacetime. *Adv. Theor. Math. Phys.* 22 (2018), no. 1, 1–23.
- [511] Haghighat, Babak; Kim, Joonho; Yan, Wenbin; Yau, Shing-Tung: D-type fiber-base duality. *J. High Energy Phys.*(2018), no. 9, 060, front matter+33 pp.
- [512] Chen, Jingyue; Huang, An; Lian, Bong H.; Yau, Shing-Tung: Differential zeros of period integrals and generalized hypergeometric functions. *Commun. Number Theory Phys.* 12 (2018), no. 4, 609–655.
- [513] Collins, Tristan C.; Xie, Dan; Yau, Shing-Tung: The deformed Hermitian-Yang-Mills equation in geometry and physics. Oxford University Press, Oxford, 2018, 69–90. ISBN: 978-0-19-880201-3; 978-0-19-880200-6
- [514] Fan, Yu-Wei; Hong, Hansol; Lau, Siu-Cheong; Yau, Shing-Tung: Mirror of Atiyah flop in symplectic geometry and stability conditions. *Adv. Theor. Math. Phys.* 22 (2018), no. 5, 1149–1207.
- [515] Wu, Damin; Yau, Shing-Tung: Complete Kähler-Einstein metrics under certain holomorphic covering and examples. *Ann. Inst. Fourier (Grenoble)* 68 (2018), no. 7, 2901–2921.
- [516] Yau, Shing-Tung: Geometry motivated by physics. *ICCM Not.* 6 (2018), no. 2, 3–8.
- [517] Chen, Bingyi; Xie, Dan; Yau, Stephen S.-T.; Yau, Shing-Tung; Zuo, Huaiqing: 4d  $N=2$  SCFT and singularity theory Part III: Rigid singularity. *Adv. Theor. Math. Phys.* 22 (2018), no. 8, 1885–1905.
- [518] Huang, Wei-Qiang; Lin, Wen-Wei; Lu, Henry Horng-Shing; Yau, Shing-Tung: iSIRA: integrated shift-invert residual Arnoldi method for graph Laplacian matrices from big data. *J. Comput. Appl. Math.* 346 (2019), 518–531.
- [519] Lei, Na; Su, Kehua; Cui, Li; Yau, Shing-Tung; Gu, Xianfeng David: A geometric view of optimal transportation and generative model. *Comput. Aided Geom. Design* 68 (2019), 1–21.
- [520] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: The Minkowski formula and the quasi-local mass. *Ann. Henri Poincaré* 20 (2019), no. 3, 889–904.
- [521] Yau, Shing-Tung; Nadis, Steve: The shape of a life. Yale University Press, New Haven, CT, 2019, xvi+293 pp. ISBN: 978-0-300-23590-6
- [522] Li, Si; Xie, Dan; Yau, Shing-Tung: Seiberg-Witten differential via primitive forms. *Comm. Math. Phys.* 367 (2019), no. 1, 193–214.
- [523] Yueh, Mei-Heng; Lin, Wen-Wei; Wu, Chin-Tien; Yau, Shing-Tung: A novel stretch energy minimization algorithm for equiareal parameterizations. *J. Sci. Comput.* 78 (2019), no. 3, 1353–1386.
- [524] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Quasi-local mass at axially symmetric null infinity. *Internat. J. Modern Phys. D* 28 (2019), no. 8, 1930013, 7 pp.

- [525] Yueh, Mei-Heng; Li, Tiexiang; Lin, Wen-Wei; Yau, Shing-Tung: A novel algorithm for volume-preserving parameterizations of 3-manifolds. *SIAM J. Imaging Sci.* 12 (2019), no. 2, 1071–1098.
- [526] Wang, Juven; Wen, Xiao-Gang; Yau, Shing-Tung: Quantum statistics and spacetime topology: quantum surgery formulas. *Ann. Physics* 409 (2019), 167904, 29 pp.
- [527] Yau, Shing-Tung; Zhang, Yi: Hodge bundles on smooth compactifications of Siegel varieties and applications. *ICCM Not.* 7 (2019), no. 2, 1–18.
- [528] Grigor'yan, Alexander; Jimenez, Rolando; Muranov, Yuri; Yau, Shing-Tung: Homology of path complexes and hypergraphs. *Topology Appl.* 267 (2019), 106877, 25 pp.
- [529] Collins, Tristan C.; Jacob, Adam; Yau, Shing-Tung: Poisson metrics on flat vector bundles over non-compact curves. *Comm. Anal. Geom.* 27 (2019), no. 3, 529–597.
- [530] Gong, Chao; Lin, Yong; Liu, Shuang; Yau, Shing-Tung: Li-Yau inequality for unbounded Laplacian on graphs. *Adv. Math.* 357 (2019), 106822, 23 pp.
- [531] Horn, Paul; Lin, Yong; Liu, Shuang; Yau, Shing-Tung: Volume doubling, Poincaré inequality and Gaussian heat kernel estimate for non-negatively curved graphs. *J. Reine Angew. Math.* 757 (2019), 89–130.
- [532] Chruściel, Piotr T.; Galloway, Greg; Isenberg, Jim; Miao, Pengzi; Wang, Mu-Tao; Yau, Shing-Tung: Introduction [Special issue: in honor of Robert Bartnik]. *Pure Appl. Math. Q.* 15 (2019), no. 2, 609–610.
- [533] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Quasi-local mass at null infinity in Bondi-Sachs coordinates. *Pure Appl. Math. Q.* 15 (2019), no. 3, 875–895.
- [534] Yau, Shing-Tung: Selected works of Shing-Tung Yau. Part 1. 1971–1991. Vol. 1. Metric geometry and minimal submanifolds. International Press, Boston, MA, 2019, xlii+371 pp. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [535] Yau, Shing-Tung: Foreword. International Press, Boston, MA, 2019, xix–xxiv. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [536] Yau, Shing Tung: On the fundamental group of compact manifolds of non-positive curvature. International Press, Boston, MA, 2019, 1–7. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [537] Lawson, H. Blaine, Jr.; Yau, Shing Tung: Compact manifolds of nonpositive curvature. International Press, Boston, MA, 2019, 9–26. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [538] Yau, Shing-Tung: Some global theorems on non-complete surfaces. International Press, Boston, MA, 2019, 27–37. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [539] Lawson, H. Blaine, Jr.; Yau, Shing Tung: Scalar curvature, non-abelian group actions, and the degree of symmetry of exotic spheres. International Press, Boston, MA, 2019, 39–51. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [540] Shing-Tung Yau: Submanifolds with constant mean curvature I. International Press, Boston, MA, 2019, 53–73. ISBN: 978-1-57146-376-0; 978-1-57146-368-5

- [541] Yau, Shing Tung: Submanifolds with constant mean curvature II. International Press, Boston, MA, 2019, 75–99. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [542] Yau, Shing-Tung: Curvature preserving diffeomorphisms. International Press, Boston, MA, 2019, 101–110. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [543] Yau, Shing-Tung: Non-existence of continuous convex functions on certain Riemannian manifolds. International Press, Boston, MA, 2019, 111–112. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [544] Cheng, Shiu-Yuen; Yau, Shing-Tung: Hypersurfaces with constant scalar curvature. International Press, Boston, MA, 2019, 113–122. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [545] Cheng, Shiu-Yuen; Yau, Shing-Tung: Maximal space-like hypersurfaces in the Lorentz-Minkowski spaces. International Press, Boston, MA, 2019, 137–149. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [546] Yau, Shing Tung: Remarks on the group of isometries of a Riemannian manifold. International Press, Boston, MA, 2019, 151–159. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [547] Meeks, William H., III; Yau, Shing-Tung: The equivariant Dehn's lemma and loop theorem. International Press, Boston, MA, 2019, 161–175. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [548] Schoen, Richard; Yau, Shing-Tung: On the structure of manifolds with positive scalar curvature. International Press, Boston, MA, 2019, 177–190. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [549] Yau, Shing- Tung; Meeks, William H., III: The equivariant loop theorem for three-dimensional manifolds and a review of the existence theorems for minimal surfaces. International Press, Boston, MA, 2019, 191–201. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [550] Meeks, William H., III; Yau, Shing-Tung: Topology of three dimensional manifolds and the embedding problems in minimal surface theory. International Press, Boston, MA, 2019, 203–246. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [551] Meeks, William H., III; Yau, Shing-Tung: The classical Plateau problem and the topology of three-dimensional manifolds. The embedding of the solution given by Douglas-Morrey and an analytic proof of Dehn's lemma. International Press, Boston, MA, 2019, 247–280. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [552] Meeks, William, III; Simon, Leon; Yau, Shing-Tung: Embedded minimal surfaces, exotic spheres, and manifolds with positive Ricci curvature. International Press, Boston, MA, 2019, 281–319. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [553] Schoen, Richard; Yau, Shing-Tung: Complete three dimensional manifolds with positive Ricci curvature and scalar curvature. International Press, Boston, MA, 2019, 321–340. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [554] Meeks, William W., III; Yau, Shing-Tung: The existence of embedded minimal surfaces and the problem of uniqueness. International Press, Boston, MA, 2019, 341–358. ISBN: 978-1-57146-376-0; 978-1-57146-368-5

- [555] Meeks, William H., III; Yau, Shing-Tung: Group actions on  $R^3$ . International Press, Boston, MA, 2019, 359–371. ISBN: 978-1-57146-376-0; 978-1-57146-368-5
- [556] Yau, Shing-Tung: Selected works of Shing-Tung Yau. Part 1. 1971–1991. Vol. 2. Metric geometry and harmonic functions. International Press, Boston, MA, 2019, xxviii+368 pp. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [557] Yau, Shing-Tung: Foreword. International Press, Boston, MA, 2019, xix–xxiv. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [558] Freedman, Michael; Yau, Shing-Tung: Homotopically trivial symmetries of Haken manifolds are toral. International Press, Boston, MA, 2019, 1–11. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [559] Cheng, Shiu-Yuen; Yau, Shing-Tung: Complete affine hypersurfaces. Part I. The completeness of affine metrics. International Press, Boston, MA, 2019, 13–40. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [560] Schoen, Richard; Yau, Shing-Tung: The structure of manifolds with positive scalar curvature. International Press, Boston, MA, 2019, 41–48. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [561] Yau, Shing-Tung: Harmonic functions on complete Riemannian manifolds. International Press, Boston, MA, 2019, 101–128. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [562] Yau, Shing-Tung: Isoperimetric constants and the first eigenvalue of a compact Riemannian manifold. International Press, Boston, MA, 2019, 151–171. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [563] Yau, Shing-Tung: Some function-theoretic properties of complete Riemannian manifold and their applications to geometry. International Press, Boston, MA, 2019, 173–184. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [564] Yau, Shing Tung: Erratum: Some function-theoretic properties of complete Riemannian manifold and their applications to geometry, Vol. 25 (1976), 659–670. International Press, Boston, MA, 2019, 185. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [565] Schoen, Richard; Yau, Shing Tung: Harmonic maps and the topology of stable hypersurfaces and manifolds with non-negative Ricci curvature. International Press, Boston, MA, 2019, 187–195. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [566] Yau, Shing-Tung: A general Schwarz lemma for Kahler manifolds. International Press, Boston, MA, 2019, 197–203. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [567] Schoen, Richard; Yau, Shing-Tung: On univalent harmonic maps between surfaces. International Press, Boston, MA, 2019, 205–218. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [568] Yau, Shing-Tung: On the heat kernel of a complete Riemannian manifold. International Press, Boston, MA, 2019, 219–229. ISBN: 978-1-57146-377-7; 978-1-57146-368-5

- [569] Schoen, Richard; Yau, Shing Tung: Compact group actions and the topology of manifolds with non-positive curvature. International Press, Boston, MA, 2019, 231–250. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [570] Schoen, Richard; Yau, Shing Tung: Corrections to "Compact group actions and the topology of manifolds with non-positive curvature". International Press, Boston, MA, 2019, 251. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [571] Li, Peter; Yau, Shing-Tung: A new conformal invariant and its applications to the Willmore conjecture and the first eigenvalue of compact surfaces. International Press, Boston, MA, 2019, 253–275. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [572] Li, Peter; Schoen, Richard; Yau, Shing-Tung: On the isoperimetric inequality for minimal surfaces. International Press, Boston, MA, 2019, 277–284. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [573] Jost, Jürgen; Yau, Shing-Tung: Harmonic maps and Kähler geometry. International Press, Boston, MA, 2019, 299–329. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [574] Yau, Shing-Tung: Problem section. International Press, Boston, MA, 2019, 331–368. ISBN: 978-1-57146-377-7; 978-1-57146-368-5
- [575] Yau, Shing-Tung: Selected works of Shing-Tung Yau. Part 1. 1971–1991. Vol. 3. Eigenvalues and general relativity. International Press, Boston, MA, 2019, xxv+381 pp. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [576] Yau, Shing-Tung: Foreword. International Press, Boston, MA, 2019, xix–xxiv. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [577] Li, Peter; Yau, Shing-Tung: Estimates of eigenvalues of a compact Riemannian manifold. International Press, Boston, MA, 2019, 1–35. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [578] Yang, Paul C.; Yau, Shing-Tung: Eigenvalues of the Laplacian of compact Riemann surfaces and minimal submanifolds. International Press, Boston, MA, 2019, 45–53. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [579] Cheeger, Jeff; Yau, Shing-Tung: A lower bound for the heat kernel. International Press, Boston, MA, 2019, 55–70. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [580] Cheng, Siu Yuen; Li, Peter; Yau, Shing-Tung: On the upper estimate of the heat kernel of a complete Riemannian manifold. International Press, Boston, MA, 2019, 71–113. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [581] Li, Peter; Yau, Shing-Tung: On the Schrödinger equation and the eigenvalue problem. International Press, Boston, MA, 2019, 115–124. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [582] Cheng, Shiu-Yuen; Li, Peter; Yau, Shing-Tung: Heat equations on minimal submanifolds and their applications. International Press, Boston, MA, 2019, 125–157. ISBN: 978-1-57146-378-4; 978-1-57146-368-5

- [583] Singer, I. M.; Wong, Bun; Yau, Shing-Tung; Yau, Stephen S.-T.: An estimate of the gap of the first two eigenvalues in the Schrödinger operator. International Press, Boston, MA, 2019, 159–173. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [584] Li, Peter; Yau, Shing Tung: On the parabolic kernel of the Schrödinger operator. International Press, Boston, MA, 2019, 175–223. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [585] Lu, Ya Yan; Yau, Shing-Tung: Eigenvalues of the Laplacian through boundary integral equations. International Press, Boston, MA, 2019, 225–237. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [586] Schoen, Richard; Yau, Shing-Tung: Positivity of the total mass of a general space-time. International Press, Boston, MA, 2019, 239–241. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [587] Schoen, R.; Yau, Shing-Tung: Existence of incompressible minimal surfaces and the topology of three dimensional manifolds with non-negative scalar curvature. International Press, Boston, MA, 2019, 243–258. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [588] Schoen, Richard; Yau, Shing-Tung: On the proof of the positive mass conjecture in general relativity. International Press, Boston, MA, 2019, 259–290. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [589] Yau, Shing-Tung: The total mass and the topology of an asymptotically flat space-time. International Press, Boston, MA, 2019, 291–295. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [590] Schoen, Richard; Yau, Shing-Tung: The energy and the linear momentum of space-times in general relativity. International Press, Boston, MA, 2019, 297–301. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [591] Schoen, Richard; Yau, Shing-Tung: Proof of the positive mass theorem. II. International Press, Boston, MA, 2019, 303–332. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [592] Schoen, Richard; Yau, Shing Tung: Proof that the Bondi mass is positive. International Press, Boston, MA, 2019, 333–335. ISBN: 978-1-57146-378-4; 978-1-57146-368-5
- [593] Yau, Shing-Tung: Selected works of Shing-Tung Yau. Part 1. 1971–1991. Vol. 4. Kähler geometry I. International Press, Boston, MA, 2019, xxxv+369 pp. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [594] Yau, Shing-Tung: Foreword. International Press, Boston, MA, 2019, xvii–xxii. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [595] Yau, Shing-Tung: The role of partial differential equations in differential geometry. International Press, Boston, MA, 2019, 1–14. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [596] On the Riemannian metrics with zero Ricci curvature on the quotient of a K3 surface: Sur les métriques riemanniennes à courbure de Ricci nulle sur le quotient d'une surface K3. Bourguignon, Jean-Pierre; Yau, Shing Tung International Press, Boston, MA, 2019, 15–17. ISBN: 978-1-57146-379-1; 978-1-57146-368-5

- [597] Cheng, Shiu-Yuen; Yau, Shing-Tung: On the regularity of the solution of the  $n$ -dimensional Minkowski problem. International Press, Boston, MA, 2019, 19–40. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [598] Yau, Shing-Tung: Intrinsic measures of compact complex manifolds. International Press, Boston, MA, 2019, 41–53. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [599] Siu, Yum-Tong; Yau, Shing-Tung: On the structure of complete simply-connected Kähler manifolds with nonpositive curvature. International Press, Boston, MA, 2019, 55. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [600] Yau, Shing-Tung: Parallelizable manifolds without complex structure. International Press, Boston, MA, 2019, 57–59. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [601] Cheng, Shiu-Yuen; Yau, Shing-Tung: On the regularity of the Monge-Ampère equation  $\det(\partial\bar{\partial}u/\partial x_i\partial\bar{x}_j)=F(x,u)$ . International Press, Boston, MA, 2019, 61–88. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [602] Yau, Shing-Tung: Calabi's conjecture and some new results in algebraic geometry. International Press, Boston, MA, 2019, 89–90. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [603] Siu, Yum-Tong; Yau, Shing-Tung: Complete Kähler manifolds with nonpositive curvature of faster than quadratic decay. International Press, Boston, MA, 2019, 91–130. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [604] Yau, Shing-Tung: On the Ricci curvature of a compact Kähler manifold and the complex Monge-Ampère equation. I. International Press, Boston, MA, 2019, 131–203. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [605] Cheng, Shiu-Yuen; Yau, Shing-Tung: On the existence of a complete Kähler metric on non-compact complex manifolds and the regularity of Fefferman's equation. International Press, Boston, MA, 2019, 211–248. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [606] Siu, Yum-Tong; Yau, Shing-Tung: Compact Kähler manifolds of positive bisectional curvature. International Press, Boston, MA, 2019, 249–264. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [607] Mok, Ngaiming; Siu, Yum-Tong; Yau, Shing-Tung: The Poincaré-Lelong equation on complete Kähler manifolds. International Press, Boston, MA, 2019, 265–300. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [608] Cheng, Shiu-Yuen; Yau, Shing-Tung: The real Monge-Ampère equation and affine flat structures. International Press, Boston, MA, 2019, 301–332. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [609] Siu, Yum-Tong; Yau, Shing-Tung: Compactification of negatively curved complete Kähler manifolds of finite volume. International Press, Boston, MA, 2019, 333–350. ISBN: 978-1-57146-379-1; 978-1-57146-368-5
- [610] Mok, Ngaiming; Yau, Shing-Tung: Completeness of the Kähler-Einstein metric on bounded domains and the characterization of domains of holomorphy by curvature conditions. International Press, Boston, MA, 2019, 351–369. ISBN: 978-1-57146-379-1; 978-1-57146-368-5

- [611] Yau, Shing-Tung: Selected works of Shing-Tung Yau. Part 1. 1971–1991. Vol. 5. Kähler geometry II. International Press, Boston, MA, 2019, xxiii+382 pp. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [612] Yau, Shing-Tung: Foreword. International Press, Boston, MA, 2019, xvii–xxii. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [613] Jost, Jürgen; Yau, Shing-Tung: A strong rigidity theorem for a certain class of compact complex analytic surfaces. International Press, Boston, MA, 2019, 39–48. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [614] Yau, Shing Tung: Nonlinear analysis in geometry. International Press, Boston, MA, 2019, 63–112. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [615] Li, Jun; Yau, Shing Tung: Hermitian-Yang-Mills connection on non-Kähler manifolds. International Press, Boston, MA, 2019, 113–126. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [616] Tian, Gang; Yau, Shing-Tung: Kähler-Einstein metrics on complex surfaces with  $C_1 > 0$ . International Press, Boston, MA, 2019, 201–229. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [617] Greene, Brian R.; Shapere, Alfred; Vafa, Cumrun; Yau, Shing-Tung: Stringy cosmic strings and noncompact Calabi-Yau manifolds. International Press, Boston, MA, 2019, 237–272. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [618] Tian, G.; Yau, Shing Tung: Complete Kähler manifolds with zero Ricci curvature. I. International Press, Boston, MA, 2019, 281–311. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [619] Tian, Gang; Yau, Shing Tung: Complete Kähler manifolds with zero Ricci curvature II. International Press, Boston, MA, 2019, 349–382. ISBN: 978-1-57146-380-7; 978-1-57146-368-5
- [620] Bieri, Lydia; Garfinkle, David; Yau, Shing-Tung: A no-boundary method for numerical relativity. *Classical Quantum Gravity* 37 (2020), no. 4, 045015, 11 pp.
- [621] Gholampour, Amin; Sheshmani, Artan; Yau, Shing-Tung: Nested Hilbert schemes on surfaces: virtual fundamental class. *Adv. Math.* 365 (2020), 107046, 50 pp.
- [622] Wu, Damin; Yau, Shing-Tung: Invariant metrics on negatively pinched complete Kähler manifolds. *J. Amer. Math. Soc.* 33 (2020), no. 1, 103–133.
- [623] Diaconescu, Duiliu-Emanuel; Sheshmani, Artan; Yau, Shing-Tung: Atiyah class and sheaf counting on local Calabi Yau fourfolds. *Adv. Math.* 368 (2020), 107132, 54 pp.
- [624] Gholampour, Amin; Sheshmani, Artan; Yau, Shing-Tung: Localized Donaldson-Thomas theory of surfaces. *Amer. J. Math.* 142 (2020), no. 2, 405–442.
- [625] Collins, Tristan C.; Jacob, Adam; Yau, Shing-Tung:  $(1,1)$  forms with specified Lagrangian phase: a priori estimates and algebraic obstructions. *Camb. J. Math.* 8 (2020), no. 2, 407–452.
- [626] Yueh, Mei-Heng; Huang, Hsiao-Han; Li, Tiexiang; Lin, Wen-Wei; Yau, Shing-Tung: Optimized surface parameterizations with applications to Chinese virtual broadcasting. *Electron. Trans. Numer. Anal.* 53 (2020), 383–405.



- [627] Huang, An; Lin, Yong; Yau, Shing-Tung: Existence of solutions to mean field equations on graphs. *Comm. Math. Phys.* 377 (2020), no. 1, 613–621.
- [628] Wang, Juven; Wen, Xiao-Gang; Yau, Shing-Tung: Quantum statistics and spacetime surgery. *Phys. Lett. B* 807 (2020), 135516, 5 pp.
- [629] Alaaee, Aghil; Khuri, Marcus; Yau, Shing-Tung: Geometric inequalities for quasi-local masses. *Comm. Math. Phys.* 378 (2020), no. 1, 467–505.
- [630] Yueh, Mei-Heng; Li, Tiexiang; Lin, Wen-Wei; Yau, Shing-Tung: A new efficient algorithm for volume-preserving parameterizations of genus-one 3-manifolds. *SIAM J. Imaging Sci.* 13 (2020), no. 3, 1536–1564.
- [631] Hosono, Shinobu; Lian, Bong H.; Takagi, Hiromichi; Yau, Shing-Tung: K3 surfaces from configurations of six lines in  $P^2$  and mirror symmetry I. *Commun. Number Theory Phys.* 14 (2020), no. 4, 739–783.
- [632] Yau, Shing-Tung: Preface to CAG special issues in honor of Karen Uhlenbeck's 75th birthday. *Comm. Anal. Geom.* 28 (2020), no. 4, 743–744.
- [633] Yau, Shing-Tung: Shiing-Shen Chern: a great geometer of 20th century. *ICCM Not.* 8 (2020), no. 1, 1–16.
- [634] Yau, Shing-Tung: Open problems. *ICCM Not.* 8 (2020), no. 1, 90–92.
- [635] Chen, Po-Ning; Wang, Mu-Tao; Yau, Shing-Tung: Quasi-local energy with respect to de Sitter/anti-de Sitter reference. *Comm. Anal. Geom.* 28 (2020), no. 7, 1489–1531.
- [636] Gu, Xianfeng; Luo, Feng; Yau, Shing-Tung: Computational conformal geometry behind modern technologies. *Notices Amer. Math. Soc.* 67 (2020), no. 10, 1509–1525.
- [637] Yau, Shing-Tung: Geometry of spacetime and mass in general relativity. *ICCM Not.* 8 (2020), no. 2, 1–9.
- [638] Chen, Bingyi; Xie, Dan; Yau, Stephen S.-T.; Yau, Shing-Tung; Zuo, Huaqing: Recent results on 4d  $N=2$  SCFT and singularity theory. International Press, Boston, MA, 2020, 193–259. ISBN: 978-1-57146-392-0
- [639] Keller, Jordan; Wang, Ye-Kai; Yau, Shing-Tung: Evaluating quasi-local angular momentum and center-of-mass at null infinity. *Adv. Theor. Math. Phys.* 24 (2020), no. 6, 1423–1473.
- [640] Yau, Shing-Tung: An essay on Eugenio Calabi. Springer, Berlin, 2020, xix–xxi. ISBN: 978-3-662-62133-2
- [641] Cao, H.-D.; Sun, X.; Yau, S.-T.; Zhang, Y.: Weil-Petersson metrics on deformation spaces. *J. Iran. Math. Soc.* 1 (2020), no. 1, 117–128.
- [642] Liu, Jijun; Wang, Liyan; Zhang, Qiang; Yau, Shing-Tung: The dynamical model for COVID-19 with asymptotic analysis and numerical implementations. *Appl. Math. Model.* 89 (2021), 1965–1982.

- [643] Cao, Jin; Movasati, Hossein; Yau, Shing-Tung: Gauss-Manin connection in disguise: genus two curves. *Adv. Math.* 383 (2021), Paper No. 107684, 37 pp.
- [644] Collins, Tristan C.; Yau, Shing-Tung: Moment maps, nonlinear PDE and stability in mirror symmetry, I: geodesics. *Ann. PDE* 7 (2021), no. 1, Paper No. 11, 73 pp.
- [645] Xie, Dan; Yan, Wenbin; Yau, Shing-Tung: Chiral algebra of the Argyres-Douglas theory from M5 branes. *Phys. Rev. D* 103 (2021), no. 6, Paper No. 065003, 6 pp.
- [646] Chen, Bingyi; Yau, Stephen S.-T.; Yau, Shing-Tung; Zuo, Huaiqing: 4d  $N=2$  SCFT and singularity theory Part IV: Isolated rational Gorenstein non-complete intersection singularities with at least one-dimensional deformation and nontrivial  $T_2$ . *Math. Res. Lett.* 28 (2021), no. 1, 1–23.
- [647] Fan, Yu-Wei; Kanazawa, Atsushi; Yau, Shing-Tung: Weil-Petersson geometry on the space of Bridgeland stability conditions. *Comm. Anal. Geom.* 29 (2021), no. 3, 681–706.
- [648] Huang, An; Lian, Bong; Yau, Shing-Tung; Yu, Chenglong: Period integrals of vector bundle sections and tautological systems. *Math. Res. Lett.* 28 (2021), no. 2, 415–434.
- [649] Huang, An; Stoica, Bogdan; Yau, Shing-Tung; Zhong, Xiao: Green's functions for Vladimirov derivatives and Tate's thesis. *Commun. Number Theory Phys.* 15 (2021), no. 2, 315–361.
- [650] Chen, Po-Ning; Keller, Jordan; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Evolution of angular momentum and center of mass at null infinity. *Comm. Math. Phys.* 386 (2021), no. 1, 551–588.
- [651] Yueh, Mei-Heng; Huang, Tsung-Ming; Li, Tiexiang; Lin, Wen-Wei; Yau, Shing-Tung: Projected gradient method combined with homotopy techniques for volume-measure-preserving optimal mass transportation problems. *J. Sci. Comput.* 88 (2021), no. 3, Paper No. 64, 24 pp.
- [652] Alaei, Aghil; Lesourd, Martin; Yau, Shing-Tung: Stable surfaces and free boundary marginally outer trapped surfaces. *Calc. Var. Partial Differential Equations* 60 (2021), no. 5, Paper No. 186, 27 pp.
- [653] Lin, Yong; Ngai, Sze-Man; Yau, Shing-Tung: Heat kernels on forms defined on a subgraph of a complete graph. *Math. Ann.* 380 (2021), no. 3-4, 1891–1931.
- [654] Hosono, Shinobu; Lian, Bong H.; Yau, Shing-Tung: K3 surfaces from configurations of six lines in  $\mathbb{P}^2$  and mirror symmetry II— $\lambda$ K3-functions. *Int. Math. Res. Not. IMRN*(2021), no. 17, 13231–13281.
- [655] Gudapati, Nishanth; Yau, Shing-Tung: Quasi-local mass near the singularity, the event horizon and the null infinity of black hole spacetimes. *Adv. Theor. Math. Phys.* 25 (2021), no. 1, 101–128.
- [656] Kuo, Yueh-Cheng; Lin, Wen-Wei; Yueh, Mei-Heng; Yau, Shing-Tung: Convergent conformal energy minimization for the computation of disk parameterizations. *SIAM J. Imaging Sci.* 14 (2021), no. 4, 1790–1815.
- [657] Yau, Shing-Tung: Robert at the IAS in Princeton. International Press, Somerville, MA, 2021, [1–3]. ISBN: 978-1-57146-397-5

- [658] Kempton, Mark; Münch, Florentin; Yau, Shing-Tung: A homology vanishing theorem for graphs with positive curvature. *Comm. Anal. Geom.* 29 (2021), no. 6, 1449–1473.
- [659] Li, Tiexiang; Lin, Wen-wei; Wang, Yiqian; Yau, Shing-Tung: Intermittent behaviors in coupled piecewise expanding map lattices. *Anal. Theory Appl.* 37 (2021), no. 4, 481–519.
- [660] Yau, Shing-Tung: Existence of canonical metrics in non-Kähler geometry. *ICCM Not.* 9 (2021), no. 1, 1–10.
- [661] Bai, Shuliang; Huang, An; Lu, Linyuan; Yau, Shing-Tung: On the sum of Ricci-curvatures for weighted graphs. *Pure Appl. Math. Q.* 17 (2021), no. 5, 1599–1617.
- [662] Lin, Yong; Wang, Chong; Yau, Shing-Tung: Discrete Morse theory on digraphs. *Pure Appl. Math. Q.* 17 (2021), no. 5, 1711–1737.
- [663] Yau, Shing-Tung: Brief history of math. *ICCM Not.* 9 (2021), no. 2, 1–18.
- [664] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Supertranslation invariance of angular momentum. *Adv. Theor. Math. Phys.* 25 (2021), no. 3, 777–789.
- [665] Cushing, David; Kangaslampi, Riikka; Lin, Yong; Liu, Shiping; Lu, Linyuan; Yau, Shing-Tung: Ricci-flat cubic graphs with girth five. *Comm. Anal. Geom.* 29 (2021), no. 7, 1559–1570.
- [666] Cushing, David; Kangaslampi, Riikka; Lin, Yong; Liu, Shiping; Lu, Linyuan; Yau, Shing-Tung: Erratum for Ricci-flat graphs with girth at least five. *Comm. Anal. Geom.* 29 (2021), no. 8, 1775–1781.
- [667] Bai, Shuliang; Lu, Linyuan; Yau, Shing-Tung: Ricci-flat graphs with maximum degree at most 4. *Asian J. Math.* 25 (2021), no. 6, 757–813.
- [668] Lee, Tsung-Ju; Lian, Bong H.; Yau, Shing-Tung: On Calabi-Yau fractional complete intersections. *Pure Appl. Math. Q.* 18 (2022), no. 1, 317–342.
- [669] Cao, Huai-Dong; Sun, Xiaofeng; Yau, Shing-Tung; Zhang, Yingying: On deformations of Fano manifolds. *Math. Ann.* 383 (2022), no. 1-2, 809–836.
- [670] Mondal, Puskar; Yau, Shing-Tung: Aspects of quasilocal energy for gravity coupled to gauge fields. *Phys. Rev. D* 105 (2022), no. 10, Paper No. 104068, 14 pp.
- [671] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: BMS charges without supertranslation ambiguity. *Comm. Math. Phys.* 393 (2022), no. 3, 1411–1449.
- [672] Keßler, Enno; Sheshmani, Artan; Yau, Shing-Tung: Super J-holomorphic curves: construction of the moduli space. *Math. Ann.* 383 (2022), no. 3-4, 1391–1449.
- [673] Schoen, Richard; Yau, Shing-Tung: Positive scalar curvature and minimal hypersurface singularities. *Surv. Differ. Geom.*, 24 International Press, Boston, MA, 2022, 441–480. ISBN: 978-1-57146-413-2
- [674] Gu, Xianfeng; Yau, Shing-Tung: Optimal transport for generative models. *ICCM Not.* 10 (2022), no. 1, 1–27.

- [675] Grigor'yan, Alexander; Lin, Yong; Yau, Shing-Tung: Discrete tori and trigonometric sums. *J. Geom. Anal.* 32 (2022), no. 12, Paper No. 298, 17 pp.
- [676] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Conserved quantities in general relativity—the view from null infinity. EMS Press, Berlin, 2022, 211–224. ISBN: 978-3-98547-021-1; 978-3-98547-019-8
- [677] Chen, Po-Ning; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Quasi-local mass on unit spheres at spatial infinity. *Comm. Anal. Geom.* 30 (2022), no. 4, 745–777.
- [678] Huang, An; Stoica, Bogdan; Yau, Shing-Tung: General relativity from p-adic strings. *Adv. Theor. Math. Phys.* 26 (2022), no. 5, 1203–1237.
- [679] Alaae, Aghil; Yau, Shing-Tung: Positive mass theorem for initial data sets with corners along a hypersurface. *Comm. Anal. Geom.* 30 (2022), no. 7, 1443–1478.
- [680] Chen, Po-Ning; Paraizo, Daniel E.; Wald, Robert M.; Wang, Mu-Tao; Wang, Ye-Kai; Yau, Shing-Tung: Cross-section continuity of definitions of angular momentum. *Classical Quantum Gravity* 40 (2023), no. 2, Paper No. 025007, 11 pp.
- [681] Gu, Xianfeng; Lei, Na; Yau, Shing-Tung: Optimal transport for generative models. Springer, Cham, 2023, 1659–1706. ISBN: 978-3-030-98660-5; 978-3-030-98661-2
- [682] Lei, Na; Luo, Feng; Yau, Shing-Tung; Gu, Xianfeng: Computational conformal geometric methods for vision. Springer, Cham, 2023, 1739–1790. ISBN: 978-3-030-98660-5; 978-3-030-98661-2
- [683] Yau, Shing-Tung; Zhao, Quanting; Zheng, Fangyang: On Strominger Kähler-like manifolds with degenerate torsion. *Trans. Amer. Math. Soc.* 376 (2023), no. 5, 3063–3085.
- [684] Long, Cody; Sheshmani, Artan; Vafa, Cumrun; Yau, Shing-Tung: Non-holomorphic cycles and non-BPS black branes. *Comm. Math. Phys.* 399 (2023), no. 3, 1991–2043.
- [685] Wu, Tianqi; Yau, Shing-Tung: Computing harmonic maps and conformal maps on point clouds. *J. Comput. Math.* 41 (2023), no. 5, 880–909.
- [686] Collins, Tristan C.; Gukov, Sergei; Picard, Sebastien; Yau, Shing-Tung: Special Lagrangian Cycles and Calabi-Yau Transitions. *Comm. Math. Phys.* 401 (2023), no. 1, 769–802.
- [687] Lin, Yong; Ngai, Sze-Man; Yau, Shing-Tung: Green's Function of a Subgraph of a Complete Graph. *Int. Math. Res. Not. IMRN*(2023), no. 13, 11145–11171.