

CURRICULUM VITAE

Shing-Tung Yau (丘成桐)

ADDRESS: Harvard University Phone : (617) 495-0836
Department of Mathematics E-mail: yau@math.harvard.edu
Harvard University
Cambridge, MA 02138, U.S.A.

BORN: April 4, 1949 Shantou, Guangdong, China

EDUCATION: 1971 Ph.D., Mathematics, University of California, Berkeley

RESEARCH

INTERESTS: Differential geometry, differential equations and general relativity

HONORARY 2005 *Doctor of Science*, National Taiwan University.

DEGREE: 2005 *Doctor of Science*, Polytechnic University in Brooklyn, New York
2004 *Doctor of Science*, Hong Kong University of Science and Technology
2004 *Doctor of Science*, National Central University
2002 *Doctor of Science*, Macau University
2000 *Doctor of Science*, National Tsing Hua University, Taiwan
1997 *Doctor of Science*, Chao Tung University, Taiwan
1987 *Master of Arts*, Harvard University
1981 *Doctor of Science*, The Chinese University of Hong Kong
2003 *Doctor of Science*, Zhejiang University.

AWARDS and FELLOWSHIPS:

2003 2003 International Scientific and Technological Cooperation Award
1997 National Medal of Science, U.S.A
1994 Crafoord Prize, The Royal Swedish Academy of Sciences
1991 Humboldt Research Award, The Alexander von Humboldt Foundation, Germany
1985 John D. and Catherine T. MacArthur Fellowship
1984 One of America's 100 brightest scientists under 40, *Science Digest*
1982 Fields Medal, International Congress of Mathematicians
1981 The John J. Carty Award for the Advancement of Science, National Academy of Sciences, U.S.A.
1981 The Oswald Veblen Prize in Geometry, American Mathematical Society
1980 John Simon Guggenheim Fellowship
1979 California Scientist of the Year, California Science Center
1975 Sloan Fellow

MEMBERSHIPS:

2005 Foreign Member, National Academy of Lincei, Italy
2005 Member of the Overseas Expert Consultant Committee of Overseas Chinese Affairs Office of State Council.
2003 Foreign Member, Russian Academy of Sciences
1995 Foreign Member, Chinese Academy of Sciences
1993 Member, National Academy of Sciences, U.S.A.
1993 Fellow, American Association for the Advancement of Science
1990 - Member-at-Large, Council of the American Mathematical Society
1992
1989 Member, Scientific Advisory Council, Mathematical Sciences Research Institute

- 1989 Member, Board of Mathematical Sciences, National Academy of Science, U.S.A.
- 1985 Member, American Physical Society
- 1985 Member, Society for Industrial and Applied Mathematics, U.S.A
- 1984 Academician, Academia Sinica, Taiwan
- 1983 Fellow, New York Academy of Sciences
- 1982 Member, American Academy of Arts and Sciences
- 1980 Honorary Member, Academic Committee, Institute of Mathematics, Chinese Academy of Sciences, Beijing
- 1971 Member, American Mathematical Society

EDITORSHIPS:

- 2005 - Editors-in-Chief, Quarterly Journal of Pure and Applied Mathematics
- 2001 - Honorary Editor, Communications in Information and Systems
- present
- 1997 - Editorial Boards, Editor, Journal of Mathematical Physics
- present
- 1997 - Editor-in-Chief, Asian Journal of Mathematics
- present
- 1994 - Editor-in-Chief, Methods and Application of Analysis
- present
- 1994 - Editorial Boards, Editor, Advances in Mathematics
- present
- 1993 - Editorial Boards, Editor, Mathematical Research Letters
- present
- 1993 - Editorial Boards, Advisor, Communications in Analysis and Geometry
- present
- 1993 - Editorial Boards, Advisor, Methods and Applications of Analysis
- present
- 1982 - Editor, Communication in Mathematical Physics
- 1999
- 1981 - Editor, Inventiones Mathematicae
- 1988
- 1980 - Editor-in-Chief, Journal of Differential Geometry
- present

SELECTED PUBLICATIONS (within last 10 years):

1. (X. Gu, Y. Wang, T.F. Chan, P.M. Thompson) Genus zero surface conformal mapping and its application to brain surface mapping, *Medical Imaging, IEEE Trans.*, 2004, volume 23, Issue: 8, 949--958.
2. (with C.-C. Liu) Positivity of quasilocal mass. *Phys. Rev. Lett.* 90 (2003), no. 23.
3. (with E. Witten) Connectedness of the boundary in the AdS/CFT correspondence. *Adv. Theor. Math. Phys.* 3 (1999), no. 6, 1635--1655 (2000).
4. (with B. Lian and K. Liu) Mirror principle. II. Sir Michael Atiyah: a great mathematician of the twentieth century. *Asian J. Math.* 3 (1999), no. 1, 109--146.
5. (with E.-M. Chiang, A. Klemm, E. Zaslow) Local mirror symmetry: calculations and interpretations. *Adv. Theor. Math. Phys.* 3 (1999), no. 3, 495--565.
6. (with A. Klemm, B. Lian, S.-S. Roan) Calabi-Yau four-folds for M- and F-theory compactifications. *Nuclear Phys. B* 518 (1998), no. 3, 515--574.
7. (with S. Hosono, B. H. Lian) GKZ-generalized hypergeometric systems in mirror symmetry

- of Calabi-Yau hypersurfaces, *Comm. Math. Phys.* 182, no. 3 (1996), 535--577.
8. (with A. Strominger, E. Zaslow) Mirror symmetry is ST -duality. *Nuclear Phys. B* 479 (1996), no. 1-2, 243--259.
 9. (with B. Lian) Mirror maps, modular relations and hypergeometric series. II. SS -duality and mirror symmetry. *Nuclear Phys. B Proc. Suppl.* 46 (1996), 248--262.
 10. (with B. Lian) Arithmetic properties of mirror map and quantum coupling, *Comm. Math. Phys.* 176, no. 1 (1996), 163--191.