

CURRICULUM VITAE

Mu-Tao Wang

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Mailing Address

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Research Interests: Differential Geometry (53), General Relativity (83), Partial Differential Equations (35), Discrete Groups (22)

Education

- Ph. D. in Mathematics, 1998, Harvard University, Cambridge, MA, U.S.A. Thesis advisor Professor Shing-Tung Yau, “ *Generalized harmonic maps and representations of discrete groups*”
- M.S. in Mathematics, 1992, National Taiwan University, Taiwan
- B.S. in Mathematics, 1988, National Taiwan University, Taiwan

Employment

- 2009-present: Professor, Department of Mathematics, Columbia University
- 2019-2025: Chair Professor (Honorary position), National Taiwan University, Taiwan
- 2017-2018: Visiting Professor, The Chinese University of Hong Kong, Hong Kong
- 2011-2012: Visiting Chair Professor, National Taiwan University, Taiwan
- 2004-2009: Associate Professor, Department of Mathematics, Columbia University
- 2001-2004: Assistant Professor, Department of Mathematics, Columbia University

- 1998-2001: Szëgo Assistant Professor, Department of Mathematics, Stanford University

Awards, Grants, and Honors.

- Frontiers of Science Award in General Relativity, International Congress for Basic Science, August 2023
- Elected Academician of Academia Sinica, Taiwan, July 2022
- Plenary speaker, Current Developments in Mathematics, Harvard and MIT, Mar. 2022
- Gold medal, Best Paper Award of International Congress of Chinese Mathematicians, Dec. 2017
- Plenary speaker, International Congress of Chinese Mathematicians, Aug. 2016
- Simons Fellow in Mathematics, Simons Foundation, 2014-2015
- Fellow of the American Mathematical Society, 2012
- Plenary speaker, International Congress of Mathematical Physics, 2012
- Fu prize of Mathematics, 2012
- Morningside Gold Medal, International Congress of Chinese Mathematicians, 2010
- Plenary speaker, International Congress of Chinese Mathematicians, Dec. 2010
- Chern Prize, International Congress of Chinese Mathematicians, 2007
- Invited address at AMS meeting, New Brunswick, NJ, Oct. 2007
- Kavli Fellow, National Academy of Sciences, 2007
- Sloan Research Fellow, Alfred P. Sloan Foundation, 2003-2005
- Harold M. Bacon Memorial Teaching Award, Stanford University, 2000
- National Science Foundation Grant, 2001-present

Selected Invited Talks in the Past Five Years

- “Workshop on Mass, the Einstein Constraint Equations, and the Penrose Inequality Conjecture”, Simons Center, Sep. 2023
- “MIST 2023 workshop on Geometry, CUHK, Hong Kong Aug.2023
- “Recent progress in special Lagrangian equations and deformed Hermitian-Yang-Mills equations”, NCTS, Taiwan, Jul. 2023
- “50 Years Celebration Master Lecture series” National Tsinghua University, Jun. 2023
- “Taiwan Mathematical Society Annual Meeting” plenary speaker, Jan. 2023
- “Frontier in Mathematical Science” Tsinghua University, Dec. 2022
- “Mathematical General Relativity”, National Center of Theoretical Sciences, Aug. 2022
- “Mathematical Aspects of General Relativity”, Oberwolfach, Sep. 2021
- “Workshop on mass in general relativity”, NCTS, Taiwan, Jul. 2019
- “International Workshop on Calabi-Yau and Geometry”, CUHK, Hong Kong, Jul. 2019
- “Geometric Analysis and General Relativity”, ETH, Jun. 2019
- “Conference on Differential Geometry, Calabi-Yau, and General Relativity”, Harvard University, May 2019
- “Annual meeting of International Consortium of Chinese Mathematicians, National Taiwan University, Dec. 2018
- “A celebration of Mathematical Relativity” conference, University of Miami, Dec. 2018
- “The role of metrics in the theory of PDE’s” conference, Hokkaido University, Jul. 2018
- Seminar and Colloquium talks in the past five years: Brandeis University (Nov. 2022), University of Southampton (Feb. 2022), Chinese University of Hong Kong (Oct. 2021), University of Minnesota (Sep. 2021), Fields Geometric Analysis Colloquium (Mar. 2021), Harvard University (May 2020), Black Hole Initiative (Mar. 2020), MIT (Oct. 2018)

Service to University and Department

- Director of Undergraduate Studies, 2020-present
- Undergraduate Curriculum committee, 2021-present
- Co-chair of short-term visitor committee, 2006-present
- Graduate admission committee, 2017, 2019
- Ad-hoc review committee, 2019, 2021, 2022, 2023

Service to Profession

Editor of

- Advances in Theoretical and Mathematical Physics
- Journal of Differential Geometry
- Taiwanese Journal of Mathematics
- Special issue of Pure and Applied Mathematics Quarterly

Conference, Workshop, and Summer Course (co-)organized in the past five years

- “Taiwan International Conference on Differential Geometry” at National Center of Theoretical Sciences, Taipei, Jan. 2024
- “Recent progress in special Lagrangian equations and deformed Hermitian-Yang-Mills equations”, National Center of Theoretical Sciences, Taipei, Jul. 2023
- Summer course “Mathematics of gravitational radiation” at National Center of Theoretical Sciences, Taipei, July, 2019
- “Isometric embeddings and quasilocal mass” at National Center of Theoretical Sciences, Taipei, Jun. 2018
- “Mass in general relativity workshop” at the Simons Center, New York, Mar. 2018
- “MIST 2018: Symposium on Geometric Analysis” at CUHK, Feb. 2018

Referee for Journal für die reine und angewandte Mathematik, Annales de l'ENS, Journal of AMS, Journal of Differential Geometry, American Journal of Mathematics, Communications in PDE, Communication in Analysis and Geometry, Mathematical Research Letter, Manuscripta Mathematica, Duke Math Journal, Advance in Mathematics, Geometriae Dedicata, Transactions of AMS, Inventiones Mathematicae, GAFA.

Reviewer and Evaluator for Royal Swedish Academy of Sciences, Tsinghua University in China, National Science Foundation, City University of New York, The Fund for Scientific Research-FNRS (Belgium), Tsinghua University in Taiwan, National Taiwan University, University of Toronto, University of California, Riverside, Chinese University of Hong Kong, Hong Kong University of Science and Technology, University of Waterloo.