



2020 ICCM
BPA

2020

世界华人数学家联盟

最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

DECEMBER 27, 2020



ICCM International Consortium
of Chinese Mathematicians

Contents

- 02* Program
- 03* 2020 ICCM Best Paper Award
- 04* 2020 ICCM Global Selection Committee
- 09* Awardees of Best Paper Award (Gold Medal)
- 23* Awardees of Best Paper Award (Silver Medal)
- 35* Awardees of Best Paper Award (若琳奖)

Program

2020 ICCM Best Paper Award Opening Ceremony

Date: December 27, 2020

Time: 8:00-9:30

Venue: Yellow Mountain Hall, Best Western Premier Hotel ,Hefei , Anhui

Time	Program
8:00-8:30	Opening Addresses Presentation of Distinguished Papers (若琳奖)
8:30-9:30	Presentation of The Chinese University of Hong Kong, Shenzhen, H.L. TU Best Paper Award Presentation of 2020 ICCM Best Paper Award

2020 ICCM Best Paper Award

Introduction

The ICCM is delighted to announce the 2020 ICCM best paper award sponsored by TCL and The Chinese University of Hong Kong, Shenzhen, H.L. TU. Thirty medals are expected to be awarded at the ICCM annual meeting, December 27th, 2020. A paper is eligible for the consideration of the 2020 best paper award if the following criteria are met:

- ① The paper is posted on MathSciDoc before April 30th, 2020. The website is at <http://archive.ymsc.tsinghua.edu.cn>.
- ② One of the principal authors is a Chinese descendant.
- ③ The paper was published in a respectable journal in the last five years (2015- 2020).
- ④ The paper has never won the ICCM best paper award (or the gold award of 2017 Best paper award).

The rules of ICCM Best Paper Award

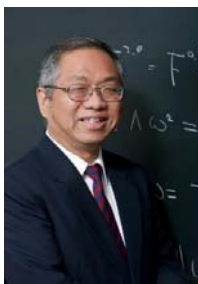
- ① This year in the annual meeting of ICCM, thirty medals are expected to be awarded to papers which are authored by Chinese descendants. In addition, distinguished papers (若琳奖) will be honored based on the recommendation of the committee members.
- ② The selection process consists of two rounds. In the first round, there will be 20 subject committees, and in the second round there will be a global committee. The committee members will be appointed by the ICCM scientific committee.
- ③ Each proposed paper should be authored by at least one Chinese descendant.
- ④ Only papers that are posted on MathSciDoc will be considered. A proposed paper should be published in a respectable journal in the last five years.
- ⑤ In December, award candidates will be invited to speak at the annual meeting of ICCM. The prize will only be awarded to candidates who attend the annual of meeting. Distinguished paper awardees are welcomed to attend the annual meeting.

世界华人数学家联盟 | 颁奖典礼

最佳论文奖

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

2020 ICCM Global Selection Committee



Shing-Tung Yau

President of ICCM

Chair of 2020 ICCM BPA Global Selection Committee

Shing-Tung Yau is born in Shantou, China. After he studied mathematics at the Chinese University of Hong Kong, he went to the University of California, Berkeley in 1969. At the age of 22, Yau was awarded the Ph.D. degree under the supervision of Shiing-Shen Chern. After a year as a member of the Institute for Advanced Study, Princeton, and two years at the State University of New York at Stony Brook, he went to Stanford University. Since 1987, he has been a Professor of Mathematics at Harvard University. Since 2013, he is also appointed a Professor of Physics at Harvard.

Yau's work is in geometry in the broadest sense. He was the first person to combine differential geometry and analysis, and used their interaction to solve longstanding problems in both subjects. Yau's work opened up new directions, set foundations and changed people's perspectives towards mathematics and their applications in physics and computer science. For example, his proof of the positive energy theorem in general relativity demonstrated—sixty years after its discovery—that Einstein's theory is consistent and stable. His proof of the Calabi conjecture gave solutions of multiple well-known open problems in algebraic geometry and also allowed physicists to show that string theory is a viable candidate for a unified theory of nature. Calabi–Yau manifolds are among the 'standard toolkit' for string theorists today.

Professor Yau also spends an enormous amount of energy to train young mathematicians at every level. He has been directors of the Institute of Mathematical Sciences at the Chinese University of Hong Kong, the Morningside Center of Mathematics of the Chinese Academy of Sciences, Center of Mathematical Sciences in Zhejiang University. In December 2009, Shing-Tung Yau was invited to serve as the inaugural director of the Mathematical Sciences Center at Tsinghua University (Renamed Yau Mathematical Sciences Center in 2015).

He won Oswald Veblen Prize in 1981, Fields Medal in 1982, MacArthur Fellow Award in 1984, Crafoord Prize in 1994, United States National Medal of Science in 1997, China International Scientific and Technological Cooperation Award in 2003, Wolf Prize in Mathematics and Asian American Engineer of the Year, AAEOY in 2010.



John Coates

Professor John Coates is an Australian mathematician. He did his Ph.D. at the University of Cambridge, and then taught at Harvard University, Stanford University, the University of Paris at Orsay, and the Ecole Normale Supérieure. In 1986, Coates was appointed Sadlerian Professor of Pure Mathematics in the Department of Pure Mathematics and Mathematical Statistics (DPMS) of the University of Cambridge. He was head of DPMS from 1990-1996. He works primarily in the applications of Iwasawa theory to the study of the conjecture of Birch and Swinnerton-Dyer about the arithmetic of elliptic curves.



Bjorn Engquist

Professor Engquist is currently Professor of the Computational and Applied Chair I at the Institute for Computational Engineering and Sciences at the University of Texas at Austin. His research mainly focuses on development and analysis of numerical methods for differential equations with applications to multi-scale modeling, electromagnetism and fluid mechanics. Professor Engquist is a member of the American Academy of Arts & Sciences, the Royal Swedish Academy of Sciences, the Royal Swedish Academy of Engineering Sciences, and the Norwegian Academy of Sciences and Letters; besides, he was an invited speaker at the International Congress of Mathematics in 1982 and in 1998. He is a recipient of the first SIAM James H. Wilkinson Prize in Numerical Analysis and Scientific Computing (1982), Peter Henrici Prize (2011), and George David Birkhoff Prize (2012).



Eduard Looijenga

Professor Looijenga is Professor of Mathematics at Yau Mathematical Sciences Center of Tsinghua University. His research areas are algebraic geometry and the theory of algebraic groups, in particular moduli spaces and locally-symmetric varieties. Professor Looijenga was an invited speaker at the International Congress of Mathematicians in 1978. He is a member of the Royal Netherlands Academy of Arts and Sciences and one of the inaugural fellows of the American Mathematical Society.

世界华人数学家联盟 | 颁奖典礼

最佳论文奖

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY



Duong Hong Phong

Professor Phong is a professor of Mathematics, Columbia University, specializing in partial differential equations, string theory and complex geometry. He was a researcher at the Institute for Advanced Study in Princeton, New Jersey. In 2009 Phong was awarded the Stefan Bergman Prize for his research on the operators involved in the Neumann $\bar{\partial}$ -problem and on pseudo-differential operators.



Bjorn Poonen

Professor Poonen is the Claude Shannon Professor of Mathematics at Massachusetts Institute of Technology. His research focuses on number theory and algebraic geometry; particularly, he is interested in developing methods for determining the rational number solutions to polynomial equations and in proving that certain problems are undecidable. Professor Poonen has been elected to American Mathematical Society and American Academy of Arts and Sciences. He is a recipient of Sloan Research Fellowship (1998), Packard Fellowship (1998), Guggenheim Fellowship (2011), Simons Fellow in Mathematics (2015); besides, he was awarded Chauvenet Prize (2011).



Donald Rubin

Professor Rubin is the John L. Loeb Professor of Statistics at Harvard University. His research interests are causal inference in experiments and observational studies, inference in sample surveys with nonresponse and in missing data problems, application of Bayesian and empirical Bayesian techniques, and developing and applying statistical models to data in a variety of scientific disciplines. Professor Rubin has been elected to the Woodrow Wilson Society, Guggenheim Memorial Foundation, Alexander von Humboldt Foundation, American Statistical Association, Institute of Mathematical Statistics, International Statistical Institute, American Association for the Advancement of Science, American Academy of Arts and Sciences, European Association of Methodology, the British Academy, and the U.S. National Academy of Sciences.



Michael I. Jordan

Michael I. Jordan is the Pehong Chen Distinguished Professor in the Department of Electrical Engineering and Computer Science and the Department of Statistics at the University of California, Berkeley. He received his Masters in Mathematics from Arizona State University, and earned his PhD in Cognitive Science in 1985 from the University of California, San Diego. He was a professor at MIT from 1988 to 1998. His research interests bridge the computational, statistical, cognitive and biological sciences. Prof. Jordan is a member of the National Academy of Sciences, a member of the National Academy of Engineering and a member of the American Academy of Arts and Sciences. He is a Fellow of the American Association for the Advancement of Science. He has been named a Neyman Lecturer and a Medallion Lecturer by the Institute of Mathematical Statistics. He was a Plenary Lecturer at the International Congress of Mathematicians in 2018. He received the IEEE John von Neumann Medal in 2020, the IJCAI Research Excellence Award in 2016, the David E. Rumelhart Prize in 2015 and the ACM/AAAI Allen Newell Award in 2009. He is a Fellow of the AAAI, ACM, ASA, CSS, IEEE, IMS, ISBA and SIAM.

In 2016, Professor Jordan was named the "most influential computer scientist" worldwide in an article in Science, based on rankings from the Semantic Scholar search engine.



Richard Schoen

Professor Richard Schoen is currently an Excellence in Teaching Chair at University of California Irvine and was the Bass Professor of Humanities and Sciences at Stanford University. His research interest mainly lies in differential geometry and notable accomplishments include solutions of the fundamental positive mass conjecture in general relativity (with S.-T. Yau), the Yamabe problem on compact manifolds, and the differentiable sphere theorem (with S. Brendle). Professor Schoen has been elected to the American Academy of Arts and Sciences and the National Academy of Sciences and became a fellow of the American Mathematical Society. He is a recipient of the MacArthur Fellowship (1983), Böchner Memorial Prize (1989), the Guggenheim Fellowship (1996), the ICCM International Cooperation Award (2010), Wolf Prize (2017), Heinz Hopf Prize (2017), Lobachevsky Prize (2017), and Rolf Schock Prize (2017).

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY



Simon Donaldson

Professor Donaldson is the Royal Society Research Professor at Imperial College London and a permanent member of the Simons Center for Geometry and Physics at Stony Brook University. His primary research areas are differential geometry and topology. He is a fellow of the Royal Society, the Royal Swedish Academy of Sciences, and the American Mathematical Society. Professor Donaldson was awarded the Junior Whitehead Prize (1985), Fields Medal (1986), Royal Medal (1992), Crafoord Prize (1994), Pólya Prize (1999), the King Faisal International Prize (2006), the Nemmers Prize in Mathematics (2008), the Shaw Prize in Mathematics (2009), Breakthrough Prize in Mathematics (2014).



Steve Zelditch

Professor Zelditch is an American mathematician, a professor at Wayne and Elizabeth Jones Professor of Mathematics of Northwestern University, specializing in global analysis, complex geometry and mathematical physics. He was elected a fellow of the American Mathematical Society in 2012, and hold the editorial boards of Communications in Mathematical Physics, Analysis & PDE and the Journal of Geometric Analysis.



Wilfried Schmid

Professor Schmid is the Dwight Parker Robinson Professor of Mathematics at Harvard University. His research concerns Lie groups and their representations. He introduced geometric methods in the study of infinite dimensional representations; on the other hand, he applied representation-theoretic methods in the other areas of mathematics. Professor Schmid has served as Mathematics Advisor to the Massachusetts Department of Education, a member of the Steering Committee of Mathematics of the National Assessment of Educational Progress, and a member of the National Mathematics Advisory Panel of the U.S. Department of Education. He is a fellow of the American Mathematical Society in 2012.

Awardees of Best Paper Award(Gold Medal)

Jonathan Wing Hong Luk

Weak null singularities in general relativity, J. Amer. Math. Soc. 31 (2018), 1-63, mathscidoc:1811.43001



Jonathan Wing Hong Luk

Jonathan Wing Hong Luk received his PhD under the supervision of Igor Rodnianski at Princeton University in 2012. After being an NSF postdoc at University of Pennsylvania, a C.L.E. Moore Instructor at MIT, and then a lecturer at University of Cambridge, he joined Stanford University, where he is currently an associate professor.

Hao Huang

Induced subgraphs of hypercubes and a proof of the Sensitivity Conjecture, Annals of Mathematics, 190, 949-955, 2019.11, mathscidoc:2005.06001



Hao Huang

Hao Huang is currently an assistant professor at Emory University. He received B.S. from Peking University in 2007 and Ph.D. from UCLA in 2012. He was a member/visitor of Institute for Advanced Study at Princeton, and DIMACS at Rutgers, from 2012 to 2014, and a postdoctoral researcher at the Institute for Mathematics and its Applications, prior to joining Emory in 2015. His research interest focuses on extremal combinatorics, probabilistic/algebraic methods, spectral graph theory, structural graph theory, and theoretical computer science. He has been honored with several awards including an NSF CAREER award (2020-25) and a Sloan Research Fellowship (2020-22).

世界华人数学家联盟
最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

GuanHuang, Vadim Kaloshin and Alfonso Sorrentino

Nearly circular domains which are integrable close to the boundary are ellipses., GAFA, 28, (2), 334–392, 2018.4, mathscidoc:1804.11002



Guan Huang

Guan Huang is currently a tenure track assistant professor in Yau Mathematical Sciences Center, Tsinghua University, Beijing. He received his PhD at École Polytechnique (France) in 2014. His research focuses on dynamics in nearly integrable Hamiltonian PDEs, energy propagation in nonlinear systems and inverse spectral problems concerning planar billiard tables.

Vadim Kaloshin

Professor Vadim Kaloshin is the Michael Brin Chair in Mathematics at University of Maryland in College Park and a Professor at Institute of Science and Technology Austria. After receiving his Ph.D. from Princeton University in 2001, he was awarded the American Institute of Mathematics five year fellowship. He is a recipient of Sloan fellowship (2004) and Simons fellowship (2016), besides, he was awarded a Moscow Mathematical Society Prize (2001) and a Barcelona Prize in Dynamical Systems (2019). In 2020 he received a gold medal from the International Consortium of Chinese Mathematics (ICCM). From 2007 to 2019 he was an editor of *Inventiones mathematicae*. He holds the editorial boards of *Advances in Mathematics*, *Analysis & PDE* and *Ergodic Theory and Dynamical Systems*. His research is in Arnold diffusion, integrability and spectral rigidity for billiards.

Alfonso Sorrentino

Alfonso Sorrentino is an Associate Professor of Mathematical Analysis at University of Rome Tor Vergata (Italy). He received his Ph.D. in Mathematics from Princeton University (USA) in 2008, under the supervision of John N. Mather. His main scientific interests are in the field of dynamical systems, more specifically, in the study of Lagrangian and Hamiltonian dynamics by means of variational methods (Aubry-Mather theory), PDE techniques (weak KAM theory and Hamilton-Jacobi equation) and geometric approaches (symplectic geometry and topology). He was awarded the Guido Fubini Prize for Mathematics (2018) and the Barcelona Dynamical System Prize (2019).

2020 ICCM BPA

世界华人数学家联盟
最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Chongsheng Cao, Jinkai Li, and Edriss Titi

Global well-posedness of the three-dimensional primitive equations with only horizontal viscosity and diffusion, *Comm. Pure Appl. Math.* 69 (2016), no. 8, 1492-1531, mathscidoc:1905.03007



Jinkai Li

Jinkai Li currently is a professor at the South China Normal University. He received his PhD from the Institute of Sciences at The Chinese University of Hong Kong in December 2013 under the supervision of Professor Zhouping Xin. He was a postdoc researcher at the Weizmann Institute of Science from July 2013 to July 2016 mentored by Professor Edriss S. Titi. Before joining the South China Normal University in July 2018, he was a research assistant professor at the Chinese University of Hong Kong from July 2016 to July 2018. He got the Second China Association of Science and Technology Outstanding Scientific Paper Award. His research interest is mainly the nonlinear partial differential equations in particular from the fluid mechanics.

Chongsheng Cao

Chongsheng Cao is currently a professor of Department of Mathematics, Florida international University, USA. He received his Ph.D. Degree in Department of Mathematics at University of California, Irvine, USA, in 1999. His research field mainly is about partial differential equations in studying fluid flows.

Edriss S. Titi

Edriss S. Titi holds the Nonlinear Mathematical Sciences Professorial Chair at the University of Cambridge (2018 –); the Arthur Owen Professorship of Mathematics (2014 –) and University Distinguished Professor (2020 –) at Texas A&M University. He is Professor of Computer Science and Applied Mathematics at the Weizmann Institute of Science (2003 –); and Professor Emeritus in the University of California – Irvine (1988-2013). He was the Stanislaw M. Ulam Distinguished Visiting Scholar (2002–2003) in the Los Alamos National Laboratory. In 2004 he was elected Fellow of the Institute of Physics, UK. In 2009 he received the Humboldt Research Award for Senior U.S. Scientists, and the Society for Industrial and Applied Mathematics (SIAM) Prize on Best Paper in Partial Differential Equations. He was selected in 2012 a Fellow of SIAM and a Fellow of the American Mathematical Society (AMS). In 2018 he received the Einstein Visiting Fellow award, Berlin; and was also named a Fellow of the John Simon Guggenheim Memorial Foundation. His research in applied and computational mathematics lies at the interface between rigorous applied analysis and physical applications.

2020 ICCM BPA

世界华人数学家联盟
最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Dihua Jiang and Lei Zhang

Arthur parameters and cuspidal automorphic modules of classical groups, *Annals of Mathematics*, 191, (3), 739-827, 2020, mathscidoc:2005.24002



Lei Zhang

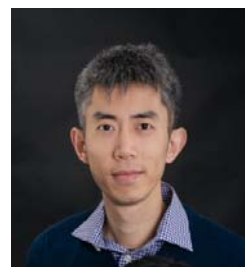
Lei Zhang is an assistant professor in the Department of Mathematics at NUS, and working on Representation Theory and Number Theory. He received Ph.D. in Math. The University of Minnesota in 2011. His research is in Automorphic Forms and L-functions, and Representation Theory of topological groups.

Dihua Jiang

Dihua Jiang is a professor of mathematics at the University of Minnesota working in number theory, automorphic forms, and the Langlands program. He joined the faculty at the Department of Mathematics at the University of Minnesota in 1998 and became a full professor in 2004. He was a recipient of a Sloan Research Fellowship and was inducted as a Fellow of the American Mathematical Society in 2019.

Xin Zhou and Jonathan J. Zhu

Minimax theory for constant mean curvature hypersurfaces, *Invent. Math.* 218 (2019), no. 2, 441-490, mathscidoc:2005.53001



Xin Zhou

2008-2013, Ph.D. in Mathematics, Stanford University
2013-2016, Instructor, MIT
2016-2020, Assistant Professor, UC Santa Barbara
2020-present, Associate Professor, UC Santa Barbara
2020-present, Associate Professor, Cornell University

Jonathan J. Zhu

Jonathan Zhu received his S.B. degree from the Massachusetts Institute of Technology. He completed his Ph.D. thesis in 2018 at Harvard University under the supervision of Prof. William Minicozzi II and Prof. Shing-Tung Yau. He is currently an NSF Postdoctoral Fellow at Princeton University.

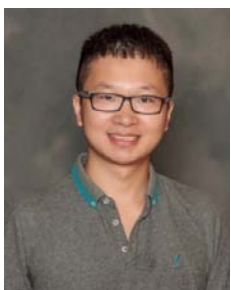
世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Alexander Goncharov and Linhui Shen

Geometry of canonical bases and mirror symmetry, *Inventiones mathematicae*, volume 202, 487–633 (2015), mathscidoc:1912.43247



Linhui Shen

Linhui Shen has been an assistant professor at Michigan State University since 2017. He received his bachelor's degree from Peking University in 2008 and his Ph.D. degree from Yale University in 2014. Before joining Michigan State University, he worked as a Boas assistant professor at Northwestern University from 2014 to 2017. His research interests include representation theory and cluster algebras.

Alexander Goncharov

Alexander Goncharov is a Professor of Mathematics of Yale University. His research interests include arithmetic algebraic geometry, and theory of cluster varieties with applications to geometry, representation theory and mathematical physics. He studied mathematics at Moscow, and became researcher at the USSR Academy of Sciences in 1985-1992, and Professor of Mathematics at Brown University (1999-2010), and at Yale University from 2010. He is the holder of the Gretchen and Barry Mazur Chair at IHES from 2019. He was awarded the European Mathematical Society Prize at the ECM in Paris in 1992.

He was an invited speaker at XII International Congress in Electronic Microscopy in Seattle in 1990, at ICM in Zurich in 1994, and at the ECM in Barcelona in 2000.

Jian Ding, Allan Sly and Nike Sun

Maximal Independent Sets on Random Regular Graphs, *Acta Math.*, 217 (2016), 263–340, mathscidoc:1911.43040



Nike Sun

Nike Sun is an Associate Professor at the MIT Mathematics Department. Her research interest is in the intersection of probability, statistical physics, and theory of computing. She received her Ph.D. in statistics from Stanford University in 2014 under the supervision of Amir Dembo. She was a Schramm fellow at Microsoft New England and MIT during 2014-15. Prior to joining MIT, she was a faculty member in the Berkeley Statistics Department.

Jian Ding

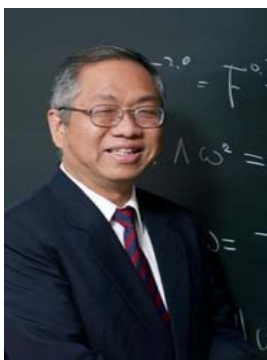
Jian Ding is an Associate Professor in the Statistics Department at University of Pennsylvania. His research area is probability theory with focus on interactions with statistical physics and theory of computer science. In particular, his recent research topics include random constraint satisfaction problems, random planar geometry, Anderson localization and disordered spin models. Ding obtained his PhD from UC Berkeley in 2011. He was a Szegő Assistant Professor at Stanford in 2011-2012 and also a MSRI postdoc fellow in Spring 2012. Jian was a faculty member in the Statistics Department at University of Chicago in 2012-2017 before joining Penn.

Allan Sly

Allan Sly received a PhD in statistics from UC Berkeley in 2009. After a postdoc at Microsoft Research and a faculty position at UC Berkeley he has been a Professor at Princeton University since 2016. His work focuses on probability theory and its connections to statistical physics, theoretical computer science and combinatorics. He received a MacArthur Fellowship in 2018.

Tristan C. Collins, Adam Jacob and Shing-Tung Yau

(1,1)-forms with specified Lagrangian phases: a priori estimates and algebraic obstructions, Cambridge J. Math. (2) (2020) 407-452, Annals of Mathematics, 191, (3), 739-827, 2020, mathscidoc:2005.15002



Shing-Tung Yau

Shing-Tung Yau was born in Shantou, China. After he studied mathematics at the Chinese University of Hong Kong, he went to the University of California, Berkeley in 1969. At the age of 22, Yau was awarded the Ph.D. degree under the supervision of Shiing-Shen Chern. After a year as a member of the Institute for Advanced Study, Princeton, and two years at the State University of New York at Stony Brook, he went to Stanford University. Since 1987, he has been a Professor of Mathematics at Harvard University. Since 2013, he is also appointed a Professor of Physics at Harvard.

Shing-Tung Yau's work is in geometry in the broadest sense. He was the first person to combine differential geometry and analysis, and used their interaction to solve longstanding problems in both subjects. Yau's work opened up new directions, set foundations and changed people's perspectives towards mathematics and their applications in physics and computer science. For example, his proof of the positive energy theorem in general relativity demonstrated, sixty years after its discovery, that Einstein's theory is consistent and stable. His proof of the Calabi conjecture gave solutions of multiple well-known open problems in algebraic geometry and also allowed physicists to show that string theory is a viable candidate for a unified theory of nature. Calabi-Yau manifolds are among the standard toolkit for string theorists today. Professor Yau also spends an enormous amount of energy to train young mathematicians at every level. He has been directors of the Institute of Mathematical Sciences at the Chinese University of Hong Kong, the Morningside Center of Mathematics of the Chinese Academy of Sciences, Center of Mathematical Sciences in Zhejiang University. In December 2009, Shing-Tung Yau was invited to serve as the inaugural director of the Mathematical Sciences Center at Tsinghua University (Renamed Yau Mathematical Sciences Center in 2015).

Professor Yau also spends an enormous amount of energy to train young mathematicians at every level. He has been directors of the Institute of Mathematical Sciences at the Chinese University of Hong Kong, the Morningside Center of Mathematics of the Chinese Academy of Sciences, Center of Mathematical Sciences in Zhejiang University. In December 2009, Shing-Tung Yau was invited to serve as the inaugural director of the Mathematical Sciences Center at Tsinghua University (Renamed Yau Mathematical Sciences Center in 2015).

- Yau's Major Prizes and Awards 1981, Oswald Veblen Prize 1982, Fields Medal
- 1984, MacArthur Fellow
- 1994, Craford Prize
- 1997, United States National Medal of Science
- 2003, China International Scientific and Technological Cooperation Award
- 2010, Wolf Prize in Mathematics and Asian American Engineer of the Year (AAEOY)
- 2018, MG15 Award (The Fifteenth Marcel Grossmann Award).

Tristan C. Collins

Tristan Collins completed his Ph.D. in 2014 at Columbia University under the direction of D. H. Phong. After graduating he was appointed as a Benjamin Peirce Assistant Professor at Harvard University. In 2018 he was appointed as an assistant professor at MIT. Collins' research focuses on geometric analysis with an emphasis on nonlinear PDE, connections with complex algebraic geometry and mathematical physics. Collins' research is supported by an Alfred P. Sloan fellowship and the National Science Foundation.

Adam Jacob

Adam Jacob completed his Ph.D. at Columbia University under the supervision of D.H. Phong. Upon graduation, he was awarded an NSF postdoc at Harvard University to work with S.-T. Yau. Currently he is an Associate Professor of Mathematics at UC Davis. He is interested in limiting properties of the Yang-Mills flow, singularities and deformations of the Yang-Mills equations, special Lagrangian equations, and mirror symmetry. His research is funded in part by a grant from the Simons Foundation.

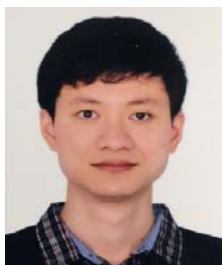
世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Yang Li

A new complete Calabi-Yau metric on C^3 , Invent. Math. 217 (2019), no. 1, 1–34 , mathscidoc:1911.43003



Yang Li

Yang Li received his B.A. and MMath from Cambridge University, and completed his PhD studies at Imperial College London under the supervision of Professor Simon Donaldson. He is currently a postdoc researcher at the Institute for Advanced Study, and will be a Clay research fellow based at MIT for the next 4 years.

Rong Zhou and Yihang Zhu

Twisted orbital integrals and irreducible components of affine Deligne-Lusztig varieties, Cambridge Journal of Mathematics, 8, (1), 2020.2, mathscidoc:2005.24005



Yihang Zhu

Yihang Zhu is currently an Assistant Professor at the University of Maryland. Previously he was a Ritt Assistant Professor at Columbia University, after receiving his PhD in 2017 from Harvard University, under the supervision of Mark Kisin.

Rong Zhou

Rong Zhou received his PhD from Harvard University in 2017 where he was supervised by Mark Kisin. After postdoctoral positions at the Institute for Advanced Study in Princeton, Yale University and Imperial College London, he took up a lectureship in the Department of Pure Mathematics and Mathematical Statistics at the University of Cambridge starting in 2020.

Yuxin Chen and Emmanuel J. Candès

Solving Random Quadratic Systems of Equations Is Nearly as Easy as Solving Linear Systems, Communications on Pure and Applied Mathematics, 70, (5), 822- 883, 2017.5 ,mathscidoc:2005.33002



Yuxin Chen

Yuxin Chen is currently an assistant professor in the Department of Electrical Engineering at Princeton University, and an associated faculty of Applied and Computational Mathematics, Computer Science, and Center for Statistics and Machine Learning. Prior to joining Princeton, he was a postdoctoral scholar in the Department of Statistics at Stanford University, and he completed his Ph.D. in Electrical Engineering at Stanford University. His research interests include high-dimensional statistics, convex and nonconvex optimization, reinforcement learning, and information theory. He received the 2019 AFOSR Young Investigator Award, the 2020 ARO Young Investigator Award, and the 2020 Princeton graduate mentoring award.

Emmanuel Candès

Emmanuel Candès is the Barnum-Simons Chair in Mathematics and Statistics, and professor of Electrical Engineering (by courtesy) at Stanford University, where he currently is a co-director of the Data Science Institute. His current research addresses the reproducibility of scientific results and the validity of machine learning predictions. Candès graduated from the Ecole Polytechnique in 1993 with a degree in science and engineering, and received his PhD in Statistics from Stanford in 1998. He received several awards including the 2006 NSF Alan T. Waterman Award and the 2020 Princess of Asturias Award for Technical and Scientific Research. He is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. In 2017, he received a MacArthur Fellowship.

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Ziyang Gao and Philipp Habegger

Heights in families of abelian varieties and the geometric Bogomolov conjecture, Ann. of Math. (2) 189 (2019), no. 2, 527–604, mathscidoc:2005.24004



Ziyang Gao

Ziyang Gao, currently a junior researcher with tenure at French National Scientific Research Center (CNRS) and Sorbonne University, specializing in number theory and arithmetic geometry. After having received a bachelor's degree from Peking University in 2010, he was awarded Erasmus-Mundus scholarships to pursue graduate studies in Europe. He received a joint master's degree from University Paris-Sud (currently University of Paris-Saclay) and University of Milan in 2012, and a joint Ph.D. from University Paris-Sud (currently University of Paris-Saclay) and University of Leiden in 2015. He was a member of the Institute for Advanced Studies (2015-2016) and an Instructor at Princeton University (2016-2018).

Philipp Habegger

Philipp Habegger is associate professor at the University of Basel with interests in number theory and diophantine geometry. He finished his PhD in 2007 under the supervision of David Masser in Basel. After graduating he was an ETH Fellow and then a lecturer at the University of Zurich. Before returning to Basel he was a professor at the Goethe University Frankfurt and the Technical University Darmstadt as well as a von Neumann Fellow at the Institute of Advanced Study in Princeton.

Awardees of Best Paper Award(Silver Medal)

Fu-Tsun Wei

On Kronecker terms over global function fields, Invent. Math. (2020) 220: 847-907, mathscidoc:1904.24002



Fu-Tsun Wei

Fu-Tsun Wei is an associate professor at National Tsing Hua University (NTHU) since 2018. He graduated from National Taiwan Normal University for bachelor's degree in 2003, and received his Master Degree and Ph. D. (supervised by Jing Yu) from NTHU in 2005 and 2010, respectively. He was a postdoc at NTHU (2010-2013) and a Research Scholar at Academia Sinica (2013-2016). Before joining NTHU, he was an assistant professor at National Central University (2016-2018). His research interests are problems in function field arithmetic, especially on Drinfeld modules and special L-values over function fields.

Hui-Chun Zhang and Xi-Ping Zhu

Lipschitz continuity of harmonic maps between Alexandrov spaces, Invent. Math. 211 (2018), no. 3, 863–934. mathscidoc:1609.10096



Hui-Chun Zhang

Hui-Chun Zhang is a professor at Sun Yat-sen University since 2018. He received his Ph.D. from Sun Yat-sen University in 2011 under the supervision of Professor Xi-Ping Zhu. His research focuses on geometric analysis and metric geometry. He was awarded one of the Top-100 PHD thesis of China in 2013. He also received a distinguished paper award (若琳奖) in ICCM 2017 and 2019.

Xi-Ping Zhu

Xi-Ping Zhu is a professor at Sun Yat-sen University. He received a Morningside Medal (Silver medal) in 2004 and the Chern Prize in 2016.

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

SC Chung, SH Wang, PY Niu, SY Huang , WH Chang, and I-PING Tu

Two-stage dimension reduction for noisy high-dimensional images and application to Cryogenic Electron Microscopy (cryo-EM), *Annals of Mathematical Sciences and Applications* , 5, (2),283-316,2020, mathscidoc:2005.84001



I-Ping Tu

I-Ping Tu is currently a research fellow and a deputy director in the Institute of Statistical Science at Academia Sinica, Taiwan. She received the B.S. and M.S. degrees from the Department of Physics at National Taiwan University in 1989 and 1991, and the Ph.D. degree from Stanford University in 1997. Her research has mainly focused on developing statistical methods to analyze cryo-electron microscopy (cryo-EM) image data, including high dimensional data analysis, dimension reduction, clustering analysis and 3D heterogeneity analysis.

Szu-Chi Chung

Szu-Chi Chung received the B.S. degree in electrical engineering and computer science from National Chiao Tung University, Hsinchu, Taiwan, in 2011, and the Ph.D. degree from the Electronics Engineering Department, National Chiao Tung University, Hsinchu, Taiwan, in 2017. He is currently a postdoctoral researcher in the Institute of Statistical Science, Academia Sinica, Taiwan. His research interests include image data analysis, machine learning and data security.

Shao-Hsuan Wang

Shao-Hsuan Wang received his Ph.D. in 2016 from the Department of Mathematics at National Taiwan University. His research interests include high-dimensional data analysis, dimension reduction, Cryo-EM data analysis, and survival analysis. After 3 years of postdoctoral training at the Institute of Statistical Science, Academia Sinica (Taiwan), he is currently an assistant professor at the Graduate Institute of Statistics National Central University. He was awarded the Ching-Zong Wei Statistics Ph. D. Dissertation Award and Wen-Chen Chen Statistics Scholarship Fund in 2016.

Po-Yao Niu

Po-Yao Niu got his bachelor degree in Mathematics, and his M.S. degree in Statistics at National Taiwan University. During 2014-2017, he worked in Sinica, Taiwan, as a research assistant under the advice of I-Ping Tu and was honored to participate in many research projects including this paper. He is currently studying in Applied Statistics, UC Riverside for his Ph.D. degree.

Su-Yun Huang

Su-Yun Huang is a research fellow in the Institute of Statistical Science, Academia Sinica, Taiwan. She received the B.S. and M.S. degrees from the Department of Mathematics at National Taiwan University in 1983 and 1985, respectively, and the Ph.D. degree from the Department of Statistics, Purdue University in 1990. Her research interests are high dimensional data analysis, dimension reduction, machine learning and robust statistical inference.

Wei-Hau Chang

Wei-Hau Chang earned his Ph.D. in 2001 from Stanford University under the supervision of Dr. Roger Kornberg with the work of cryo-electron microscopy 2D crystallography. He established a cryo-EM facility in Taiwan since he joined Academia Sinica 2003. He is now a tenured associate research fellow at the Institute of Chemistry and a co-director of the Cryo-EM Center of Academia Sinica. Most of his works are focused on elucidating structures and dynamics of molecular machines by using data collected from cryo-EM, free electron X-ray laser, and single-molecule fluorescence imaging, all of which are ill-posed, high-dimensional and noisy in nature that demand innovative mathematical solutions.

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Jian-Guo Liu and Robert L. Pego

On local singularities in ideal potential flows with free surface, Chin. Ann. Math. Ser. B 40(6), 2019, 925–948, mathscidoc:1905.43010 On local singularities in ideal potential flows with free surface, Chin. Ann. Math. Ser. B 40(6), 2019, 925–948, mathscidoc:1905.43010



Jian-Guo Liu

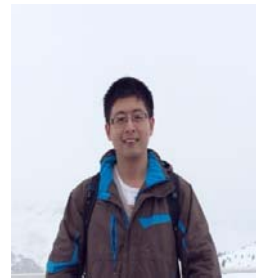
Jian-Guo Liu is a Professor of Mathematics and Physics at Duke University. He received a BS and MS from Fudan University in 1982 and 1985 respectively, and a PhD from UCLA in 1990. His research focuses on analysis of numerical methods for fluid dynamics, kinetic theory, and nonlinear partial differential equations, and applied mathematics in general. He is a AMS Fellow 2017.

Robert L. Pego

Robert Pego is Professor of Mathematical Sciences at Carnegie Mellon University. His research focuses on nonlinear dynamics in partial differential equations, especially the dynamics of phase transitions, clustering, and the stability of solitary waves. He served as editor-in-chief of the SIAM Journal on Mathematical Analysis from 2007 to 2013. He was selected as a SIAM Fellow in 2009, an AMS Fellow in 2016, and a Simons Fellow in 2017.

Junyi Xie and Serge Cantat

Algebraic actions of discrete groups: the p-adic method, Acta Mathematica, 220, (2), 239–295, 2018 , mathscidoc : 1908.01002



Junyi Xie

Junyi Xie is a CNRS researcher working at the University of Rennes (France). He is mainly interested in arithmetic dynamics and group of birational transformations of algebraic varieties. He studied at University of Science and Technology of China and Ecole Normale Supérieure. He received Ph.D. from Ecole Polytechnique with Charles Favre in 2014.

Serge Cantat

Serge Cantat is a CNRS researcher working at the University of Rennes (France). He is interested in groups of algebraic transformations, typically birational transformations, their algebraic structures, and their dynamical properties. Part of his work with Junyi Xie was done during his visit to the Institute for Advanced Study (Princeton, USA), and benefited from a del Duca grant from the french academy of sciences.

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Ke Deng, Peter K. Bol, Kate J. Li and Jun S. Liu

On the Unsupervised Analysis of Domain-Specific Chinese Texts, Proceedings of the National Academy of Sciences of USA, 2016, Vol. 113 (22), 6154-6159, mathscidoc : 1904.33001



Ke Deng

Ke Deng is Associate Professor of Statistics at Tsinghua University. He received his B.Sc. in Applied Math in 2003 and Ph.D. in Statistics in 2008 from Peking University. He was a postdoctoral research associate at Harvard University before joining Tsinghua University in 2013. His research interests include Bayesian statistics and computation, bioinformatics, natural language processing and digital humanity. He is the founding President of the Chinese Association of Statistical Computing, the Vice President of the Chinese Association of Artificial Intelligence in Medicine, Research Fellow of Beijing Academy of Artificial Intelligence, and Associate Editor of *Statistica Sinica*.

Peter K. Bol

Peter K. Bol is the Charles H. Carswell Professor of East Asian Languages and Civilizations at Harvard University. His research is centered on the history of China's cultural elites at the national and local levels from the 7th to the 17th century. He is the author of *"This Culture of Ours": Intellectual Transitions in T'ang and Sung China*, *Neo-Confucianism in History*, coauthor of *Sung Dynasty Uses of the I-ching*, co-editor of *Ways with Words*. He directs the China Biographical Database project and the China Historical Geographic Information Systems project. He also served as the first director of the Center for Geographic Analysis (2005) and Vice Provost (2013/09-2018/10) of Harvard University.

Kate J. Li

Kate Li is an Associate Professor of Information Systems and Operations Management at Suffolk University. She received her bachelor's degrees in Environmental Sciences and Economics from Peking University in 2001. She also holds a Master's degree in Agricultural Economics and a Ph.D. degree in Business Administration from The Pennsylvania State University. Her expertise is in operations management, healthcare services research, and data analytics. She has extensive research experience in empirical research that includes survey, observational, and experimental studies since joining Suffolk University in 2009. Her recent work focuses on applying data analytics and econometrics models to solve business challenges

Jun S. Liu

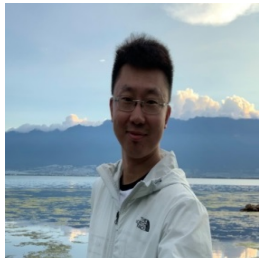
Jun S. Liu is Professor of Statistics and Biostatistics at Harvard University. After receiving his Ph.D. from the University of Chicago, he was appointed as Assistant Professor (1991-1994) and Full Professor (2000-) at Harvard University. He also held Assistant, Associate and Full Professor positions at Stanford University from 1994 to 2003. He also co-founded the Center for Statistical Science of Tsinghua University in 2015. His academic achievements in statistics theory, Bayesian modeling, statistical computing, bioinformatics, and computational biology were recognized by the 2002 COPSS Presidents' Award, the 2010 Morningside Gold Medal of Applied Mathematics, the 2012 ICSA Distinguished Achievement Award, and the 2016 ICSA Pao-Lu Hsu Award. He was elected to Fellow of Institute of Mathematical Statistics and Fellow of American Statistics Association. He was the co-editor of the *Journal of American Statistics Association*, and has served on the editorial board of multiple leading statistical journals.

世界华人数学家联盟 | 颁奖典礼
最佳论文奖

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Ping Xi

When Kloosterman sums meet Hecke eigenvalues, Invent. math. 220 61-127 (2020), mathscidoc : 2005.24003

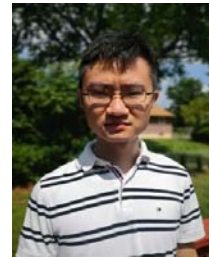


Ping Xi

Ping Xi is a professor at Xi'an Jiaotong University, where he received his bachelor degree in 2008, master degree in 2011 and Ph.D. in 2014. From 2012 to 2014, he studied in École Polytechnique Fédérale de Lausanne as an exchange doctoral student. He is now working in number theory, with emphasis on the interactions of analytic number theory and algebraic geometry.

Xin Fu, Bin Guo and Jian Song

Geometric estimates for the Monge-Ampere equation, Journal für die reine und angewandte Mathematik, 2020, no., 765, 69–99, , mathscidoc:2005.03002



Xin Fu

Xin Fu is a visiting assistant at the Department of Mathematics, University of California Irvine. He received Ph.D. in mathematics , Rutgers University in 2020.

Bin Guo

Bin Guo is an assistant professor at the Department of Mathematics & Computer Science, Rutgers University since 2020. He received Ph.D. in mathematics , Rutgers University in 2015. He was an Ritt Assistant Professor at Columbia university during 2015-2019.

Jian Song

Jian Song currently is a professor at Rutgers University since 2007. He received Ph.D. in mathematics Columbia University in 2004. He was a Sloan fellow in 2009 and was awarded Rutgers President's Award in 2010. He has been funded by National Science Foundation since 2006. His research interests lie in the areas of geometric analysis and complex geometry.

2020 ICCM BPA

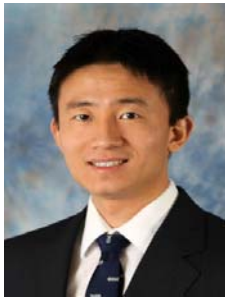
世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

Mingyi Hong, Zhi-Quan Luo and Meisam Razaviyayn

Convergence Analysis of Alternating Direction Method of Multipliers for a Family of Nonconvex Problems, Siam Journal On Optimization, 26, (1), 2016.1, mathscidoc:2004.27018



Mingyi Hong

Mingyi Hong received his Ph.D. degree from the University of Virginia, Charlottesville, in 2011. He is an associate professor in the Department of Electrical and Computer Engineering, and holds adjunct positions in the Department of Computer Science and Engineering, and the Department of Industrial and Systems Engineering, at the University of Minnesota, Minneapolis. He serves on the IEEE Signal Processing for Communications and Networking and Machine Learning for Signal Processing Technical Committees. He was the recipient of the IBM academic award in 2020, the Best Student Paper Award in the Asilomar Conference on Signals, Systems and Computers in 2019. He was also a finalist for the Best Paper Prize for Young Researcher in Continuous Optimization in 2013 and 2016. His research interests include optimization theory and applications in signal processing and machine learning.

Zhi-Quan Luo

Zhi-Quan Luo received the B.Sc. degree in applied mathematics from Peking University, Beijing, China, in 1984 and the Ph.D. degree in operation research from the Massachusetts Institute of Technology, Cambridge, MA, USA in 1989. In the same year, he was selected by a joint AMS-SIAM committee and the Ministry of Education of China for graduate study in the United States (S.S. Chern Program) following a 12-month intensive training in English and Mathematics. From 1989 to 2003, he was on the faculty with the Department of Electrical and Computer Engineering, McMaster University, Canada where he eventually as the Department Head was awarded a Canada Research Chair (Tier I) in Information Processing. From 2003 to 2014, he was a Full Professor with the Department of Electrical and Computer Engineering, University of Minnesota and held an endowed ADC Chair in digital technology. He is currently the Vice President (Academic) of The Chinese University of Hong Kong, Hong Kong, and concurrently the Director of Shenzhen Research Institute of Big Data and also the Director of CUHK(SZ)-Tencent AI Lab Joint Laboratory on Machine Intelligence. His research mainly addresses mathematical issues in information sciences, with particular focus on the design, analysis and applications of optimization algorithms. He was the recipient of 2010 Farkas Prize from the INFORMS Optimization Society for outstanding contributions to the field of optimization. In 2018, he was awarded the prize of Paul Y. Tseng Memorial Lectureship in Continuous Optimization. He was also the recipient of the three best paper awards from the IEEE Signal Processing Society in 2004, 2009, and 2011 respectively, and a 2011 Best Paper Award from the EURASIP. He is a Fellow of the Society for Industrial and Applied Mathematics. In 2014, he was elected to the Royal Society of Canada, the highest honor a Canadian scholar can achieve in the Arts, Humanities, and Sciences. In 2016, he was elected to the Leading Talent Program of Guangdong Province. He consults regularly with industry on topics related to signal processing and digital communication. He was the semi-plenary speaker for the International Symposium on Mathematical Programming in 2003 and IEEE CDC conference in 2011, the Distinguished Lecturer for the IEEE Sensor Array and Multichannel Signal Processing Workshop in 2006, the plenary speaker for the IEEE Signal Processing Advance for Wireless Communications Workshop in 2013, and IEEE Signal Processing Theory and Methods Workshop in 2014. He was the Chair of the IEEE Signal Processing Society Technical Committee on Signal Processing for Communications. He was an Editor in Chief for the IEEE TRANSACTIONS ON SIGNAL PROCESSING from 2012 to 2014 and was an Associate Editor for many internationally recognized journals, including Mathematics of Operations Research, Management Science, Mathematical Programming and others.

Meisam Razaviyayn

Meisam Razaviyayn received his Ph.D. degree in electrical engineering with a minor in computer science in University of Minnesota. He is an assistant professor of industrial and systems engineering, computer science, and electrical engineering at the University of Southern California (USC). Prior to joining USC, he was a postdoctoral research fellow in the Department of Electrical Engineering at Stanford University. He was the recipient of the IEEE Signal Processing Society Young Author Best Paper Award in 2014 and the Best Paper Award in the IEEE Data Science Workshop in 2019. He was also a finalist for the Best Paper Prize for Young Researcher in Continuous Optimization in 2013 and 2016. His research interests include the design and analysis of large-scale optimization algorithms arising in the modern data science era.

Xiangdi Huang and Jing Li

Global classical and weak solutions to the three-dimensional full compressible Navier-Stokes system with vacuum and large oscillations, Arch. Ration. Mech. Anal. 227 (2018), no. 3, 995–1059, mathscidoc:1803.03001



Xiangdi Huang

Xiangdi Huang received his Ph. D. from the Chinese University of HongKong in 2009 under the supervision of Professor Zhouping Xin. His research focus on the nonlinear partial differential equations, especially dynamics of the compressible Navier-Stokes equations. He was a postdoc in Universite de Savoie, France in 2011. Then he spent 2 years as a JSPS researcher in the Osaka university, Japan from 2011-2013. He is currently an associate professor of institute of mathematics from the Academy of Mathematics and Systems Science. He also received a Best Paper Silver Award in ICCM 2017.

Jing Li

Jing Li received his Ph. D. degree in 2004 in the Chinese University of Hong Kong. In 2006, he became an assistant professor position in Institute of Applied Mathematics from the Chinese Academy of Mathematics and Systems Science and was promoted to full professor in 2013. He is now also a professor of Nanchang University. He was a JSPS researcher in Osaka University, Japan from 2006-2008. His main research interest lies in the nonlinear partial differential equations arising from fluid dynamics, especially the compressible Navier-Stokes equations and their related models. He also received a Best Paper Silver Award in ICCM 2017.

Awardees of Best Paper Award (若琳奖)

- ① Yu-Wei Fan ,Atsushi Kanazawa, and Shing-Tung Yau, WEIL-PETERSSON GEOMETRY ON THE SPACE OF BRIDGELAND STABILITY CONDITIONS, Accepted to Comm. Anal. Geom.(2017.8) , mathscidoc:1912.43643
- ② Weiyi Zhang, Intersection of almost complex submanifolds, Camb. J. Math. 6 (2018), no. 4, 451–496, mathscidoc:2005.08001
- ③ Junyan Cao, Mihai P’aun, Kodaira dimension of algebraic fiber spaces over abelian varieties, Invent. Math. 207 (2017), 345–387, mathscidoc:1911.43006
- ④ Tom Coates, Alessio Corti, Hiroshi Iritani, and Hsian-Hua Tseng , Hodge-theoretic mirror symmetry for toric stacks, Journal of Differential Geometry, 114, (1), 41-115, 2020.1, mathscidoc:1801.01001
- ⑤ Changzheng Li, Si Li, Kyoji Saito , and Yefeng Shen , Mirror symmetry for exceptional unimodular singularities, J. Eur. Math. Soc. (JEMS) , 19, (4), 1189–1229, 2017, mathscidoc:1705.01003
- ⑥ Yudong Guo, Juyong Zhang, Jianfei Cai, Boyi Jiang, and Jianmin Zheng, CNN-Based Real-Time Dense Face Reconstruction with Inverse-Rendered Photo- Realistic Face Images, IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) , 41, (6), 2019.6 ,mathscidoc:1909.16003
- ⑦ Christian Klingenberg, Gero Schnücke, and Yinhua Xia, Arbitrary Lagrangian-Eulerian discontinuous Galerkin method for conservation laws: analysis and application in one dimension, Mathematics of Computation , 86, (305), 1203-1232, 2017.5 , mathscidoc:1612.25004
- ⑧ C. Kristopher Garrett, Zhaojun Bai, and Rencang Li, A nonlinear QR algorithm for banded nonlinear eigenvalue problems, ACM Transactions on Mathematical Software, Softw., 43, (4), 19, 2016, mathscidoc:1609.25002
- ⑨ Kelin Xia, Zhiming Li, and Lin Mu, Multiscale persistent functions for biomolecular structure characterization, Bulletin of Mathematical Biology, 2018, 80:1-31, mathscidoc:2005.04001
- ⑩ Xin Zhou, Min-max hypersurface in manifold of positive Ricci curvature, J. Differential Geom. 105 (2017), no. 2, 291-343,mathscidoc: 1610.10031
- ⑪ Raphaël Beuzart-Plessis, and Chen Wan, A local trace formula for the generalized Shalika model, Duke Mathematical Journal, 168, (7), 1303-1385, 2019, mathscidoc:1908.24001

世界华人数学家联盟 最佳论文奖

颁奖典礼

2020 ICCM BEST PAPER AWARD
AWARD CEREMONY

- ⑫ Qing Lu, and Weizhe Zheng, Duality and nearby cycles over general bases, *Duke. Math. J.* 168 (2019), no. 16, pp. 3135–3213, mathscidoc:1904.07002
- ⑬ Jinshan Zeng, Ke Ma, and Yuan Yao, On Global Linear Convergence in Stochastic Nonconvex Optimization for Semidefinite Programming, *IEEE TRANSACTIONS ON SIGNAL PROCESSING*, 67, (16), 4261-4275, 2019.8, mathscidoc:2004.41002
- ⑭ Jiashun Jin, Fast community detection by SCORE, *Annals of Statistics* , 43, (1), 57-89, 2015.2 ,mathscidoc:2005.33001
- ⑮ Jiajun Zhang ,and Tianshou Zhou , Markovian approaches to modeling intracellular reaction processes with molecular memory, *PNAS*, 116, 23542-23550, 2019.11 ,mathscidoc:2004.42003
- ⑯ Yujie Ye, Xin Kang, Jordan Bailey, Chunhe Li, and Tian Hong ,An enriched network motif family regulates multistep cell fate transitions with restricted reversibility, *PLOS Computational Biology*, 15, (3), e1006855, 2019.3 , mathscidoc:2004.11001
- ⑰ Weihua Geng ,and Shan Zhao, A two-component Matched Interface and Boundary (MIB) regularization for charge singularity in implicit solvation, *Journal of Computational Physics* 351 (2017) 25-39, mathscidoc: 2005.42001

2020 ICCM

