

Introduction

School of Mathematical Sciences, established in December, 2015, is a continuation of the old name "Department of Mathematics". It features "Three Departments and One Center", which consist of the Department of Mathematics, the Department of Applied and Computational Mathematics, the Department of Statistics and the Mathematical Education and Research Center. In the latest US NEWS rankings for mathematical sciences, SJTU Math ranked 29th globally. The school has been included in the project "Network of International Centers of Education in China" (three in total nationwide), which facilitates its development in internationalization.

The School is providing the following degree programs :

Ph. D. programs in mathematics/statistics (English/Chinese Program);
Master programs in mathematics (Chinese Program);
Professional master program in applied statistics (Chinese Program).

In addition, the school aims to nurture high-level academic researchers by providing postdoctoral programs in mathematics and statistics.

School of Mathematical Sciences

Subjects	Research Fields
Algebra	Representation Theory, Triangulated Category, Lie Algebra, and Vertex Operator Algebra, etc.
Geometry & Analysis	Geometric Analysis, Lower-dimensional Topology, Partial Differential Equations and Complex Dynamics of Several Variables, etc.
Number Theory	Analytic Number Theory, Algebraic Number Theory, and Cryptology, etc.
Partial Differential Equations and Their Applications	Hyperbolic PDEs, Mathematical Theory of PDEs in Fluid Dynamics, and Regularity Theory and Qualitative Behavior for Elliptic Equations, etc.
Ordinary Differential Equations and Dynamical Systems	Qualitative Theory, Bifurcation Theory, and Integrable Theory, etc.
Mathematical Physics	Continuous and Discrete Integrable Systems, Theory of Nonlinear Waves, Nonintegrable Systems, and Integrable Systems and Orthogonal Polynomials, etc.
Combinatorics	Algebraic Combinatorics, Graph Theory, and Complex Network, etc.
Optimization	Nonlinear Least-squares, Polynomial Optimization, Convex Optimization, and Image Processing, etc.
Scientific Computation	Numerical Solutions of Differential Equations, Mathematical Modeling and Computation for Multi-scale Problems, Fast Solvers for Physical and Mechanical Problems, and Numerical Algebra, etc.
Applied Mathematics in Biology	Physics Process in Biological System, Theoretical and Computational Nuroscience, etc.
Statistics, Probability & Financial Mathematics	Stochastic Analysis, Credit Risk Analysis, and Financial Mathematics, etc.

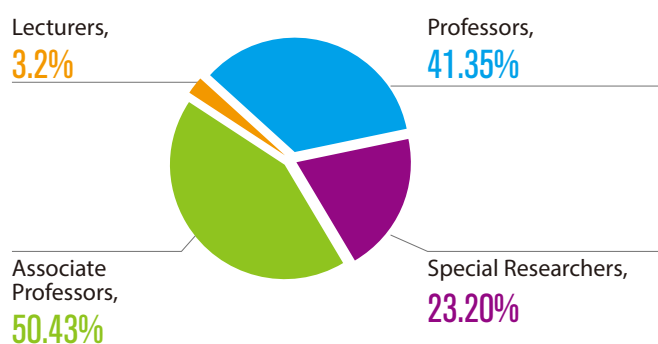


In the past few years, the School of Mathematical Sciences has achieved rapid growth in research funds, including 19 new projects in 2017, among which fifteen projects are from National Natural Science Foundation of China (NSFC), two projects are from the Shanghai Natural Science Fund and two projects are from Post-doctoral Fund of China. Since 2010, the faculty have had over 1,417 SCI papers published in many leading journals enjoying world recognition, including *Journal of American Mathematical Society*, *SIAM Review*, *Proceedings of the National Academy of Sciences of the USA*, *Physical Review Letters*, and *Annals of Statistics*, etc.

➤ Platforms for Scientific Innovation

- > Ministry of Education Key Laboratory of Scientific & Engineering Computing
- > Shanghai Key Lab in Mathematical Modeling, Analysis, and Computation for Multi-Physical Processes
- > Institute of Natural Sciences
- > Interdisciplinary Platform--The Zhiyuan Center for Mathematical Sciences
- > Interdisciplinary Platform in Statistics

Faculty



Tudor Stefan Ratiu
> Chair Professor



Samuel Drapeau
> Special Researcher



Victor Mouquin
> Special Researcher



Mikhail Tyaglov
> Special Researcher



James Fullwood
> Special Researcher



Mounir Hajli
> Special Researcher

International Cooperation

School of Mathematical Sciences of SJTU is one of the network nodes of American NSF, which now has 3 nodes altogether, including Cambridge University, Université Paris VI, and SJTU. Besides, the school has already established academic collaborations with Oxford University, Université Pierre et Marie Curie, University of Konstanz, Indiana University, University of Wisconsin-Madison, Northwestern University, National University of Singapore, etc.

Communications on Pure and Applied Analysis, an international mathematical journal, is jointly issued by the Department of Mathematics (now School of Mathematical Sciences), SJTU, and the American Institute of Mathematical Sciences. It has been one of SCI journals since 2009.



Contact

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