



数学楼

## Introduction

The School of Mathematical Sciences was established in December 2015, and it is a continuation of the old Department of Mathematics. It has three departments and one center: Department of Mathematics, Department of Applied and Computational Mathematics, Department of Statistics, and 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, which facilitates its development in internationalization.

### The School is providing the following postgraduate degree programs in both Mathematics and Statistics:

- > Ph. D. Programs in Mathematics/Statistics;
- > Master Programs in Mathematics/Statistics;
- > Professional Master Program in Applied Statistics.

In addition, the School aims to nurture high-level academic researchers by providing postdoctoral programs in Mathematics and Statistics.

# School of Mathematical Sciences

Subject Fields	Research Contents
Algebra	Representation Theory, Triangulated Category, Lie Algebra, and Vertex Operator Algebra, etc.
Geometry and 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 Neurosciences, etc.
Statistics, Probability and Financial Mathematics	Stochastic Analysis, Credit Risk Analysis, and Financial Mathematics, etc.

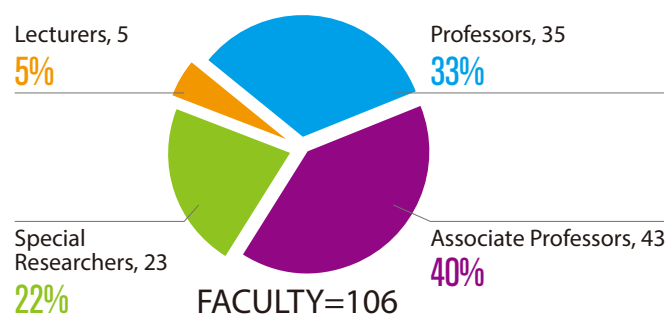


In the past few years, the School of Mathematical Sciences has achieved rapid growth in research funds, including 13 new projects in 2016, among which nine projects are from National Natural Science Foundation of China (NSFC), two projects are from the Shanghai Natural Science Fund, and one project is from Post-doctoral Fund of China. Since 2010, the faculty have had over 1,000 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, Advances in Mathematics, and Annals of Statistics, etc.

## ➤ Platforms for Scientific Innovation

- > Ministry of Education Key Laboratory of Scientific and 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



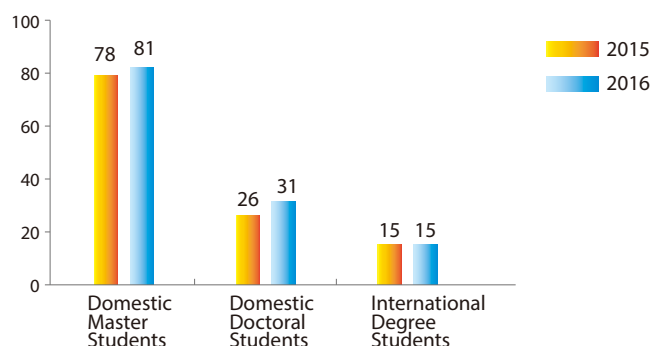
## International Cooperation

The 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, etc.

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

## Graduate Student Admission

\*International doctoral students take up 23% of doctoral students in total.



## Contact

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