# Junyan Zhang

## Curriculum Vitae

## BRIEF PERSONAL INTRODUCTION

NAME Junyan Zhang

BIRTHDAY Oct. 3rd, 1996. 20 years old now.

HOMETOWN Nanchang, Jiangxi Province, China.

AFFLIATION Undergraduate in School of Mathematical

Sciences, University of Science and

Technology of China.

### **EDUCATION**

2013.8-Now Undergraduate

PURE MATH

School of Mathematical Sciences, USTC.

2008.9-2013.6 Junior+Senior High School

5-Year School of the Gifted Young, Nan-

chang No. 10 High School.

#### GRADE

OVERALL GPA 3.83/4.30,(Math Course: 3.93/4.30)

AVERAGE 89.58/100.00,(Math Course: 91.21)

## STANDARDIZED TESTS

GRE V:152 (55%), Q:170 (97%), AW: 3.0 (17%).

TOEFL iBT 100 (R:28, L:22, S:22, W:28)

GRE-SUB MATH 900 (97%)

#### HONORS, AWARDS, FELLOWSHIP

2016	Huang Yu Honor Prize Scholarship;
2016	Best Teaching Assistant Award in USTC, rank 6/703 among all TAs in USTC;
2015	First Prize in National Mathematics Contest;
2015	Zhang Zongzhi Sci-Tech Scholarship;
2014	Silver Prize for Outstanding Student Scholarship;
2013	Silver Prize for Outstanding Freshman Scholarship.

## RESEARCH PROJECT

2016 Linear Inviscid Damping and Asymptotic Behaviour of Euler's Equation

Supervisor: Prof. Lifeng Zhao.

#### Reference:

 Christian Zillinger: Linear Inviscid Damping for Monotone Shear Flows in a Finite Periodic Channel, Boundary Effects, Blow-up and Critical Sobolev Regularity, Arch. Rational Mech. Anal. 221 (2016), 1449-1509.

[2] Christian Zillinger: Linear Inviscid Damping for Monotone Shear Flows, preprint, arxiv:1410.7341.

[3] Dongyi Wei, Zhifei Zhang, Yiren Zhao: Linear inviscid damping for a class of monotone shear flow in Sobolev spaces, Comm.Pure Appl. Math, 2015.

2016 **2D Stochastic Navier-Stokes Eq.** Supervisor: Prof. Lifeng Zhao.

#### Reference:

 Sergei Kuksin and Armen Shirikyan: Mathematics of 2D Turbulence, Cambridge University Press. ∠□ | ROOM x001-519, WEST CAMPUS, USTC, HEFEI, AN-

HUI, 230027, P. R. CHINA

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#### INTERESTED FIELDS

- 1. Harmonic Analysis and Its Applications to PDEs;
- 2. PDEs in Fluid Dynamics;
- 3. Stochastic Processes and Analysis.

## TEACHING ASSISTANT WORK

2016 FALL Advanced Real Analysis(Graduate Level)

Instructor: Prof. Hao Yin

TEXTBOOK Measure Theory and Fine Properties of Functions, L. C. Evans, R. Gariepy.

For Senior undergradautes and graduate freshmen to study Radon measure, Hausdorff measure, Detailed proof of Area and Co-area

measure, Detailed proof of Area and Co-area formulae, Sobolev spaces and FINE properties of functions. Also, this course is the prerequi-

site of geometric measure theory.

2016 Spring Real Analysis(H)

Instructor: Prof. Hao Yin

TEXTBOOK Real Analysis, E. M. Stein, R. Shakarchi;

Analysis, E. Lieb, M. Loss.

For Loo-Keng Hua Class of 2nd grade to study Lebesgue measure and integral theory and Differentiation theory including Hardy-Littlewood maximal function, in Euclidean Spaces. Also, this course gives an introduc-

tion to abstract measure theory.

## GRADUATE LEVEL COURSES

	Having Attended
2016 Spring	Stochastic Processes(97)
2016 Spring	Harmonic Analysis(95)
2016 Spring	Stochastic Analysis(97)
2016 Spring	Probability Limiting Theory(93)
2016 Spring	Differential Equation II(H)(90)
2015 FALL	Advanced Real Analysis(97,Highest)
2015 FALL	Advanced Probability Theory(91)
2016 FALL	2nd Order Elliptic PDE(90)
2016 FALL	Differential Manifolds(84)
2016 FALL	Martingale and Stochastic Calculus(96)
2016 FALL	Nonlinear PDEs in Fluid Dynamics(96)
	Ongoing or Expected
2017 Spring	Riemann Geometry(Next Semester)
2017 Spring	Nonlinear Dispersive PDEs(Next Semester)
2017 Spring	Nonlinear Elliptic PDEs(Next Semester)