

# Shuai Zha – *Curriculum Vitae*

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<b>Date of Birth</b>	1 <sup>st</sup> September 1992	<b>Email</b>	szha@phy.cuhk.edu.hk
<b>Nationality</b>	Chinese		

## Personal Profile

I am currently a Ph.D. candidate in Department of Physics, the Chinese University of Hong Kong. I mainly work on developing a hydrodynamics code with neutrino transport to simulate core-collapse supernovae. I also work on evolution of super asymptotic giant branch stars as progenitors of electron capture supernovae.

## Education

- 2015-** Ph.D. in Physics - the Chinese University of Hong Kong, Hong Kong  
*Supernovae simulation and stellar evolution*
- 2012-2015** M.Sc. in Physics - Fudan University, Shanghai  
*Sum-frequency spectroscopy with femtosecond laser*
- 2008-2012** B.Sc. in Physics - Fudan University, Shanghai

## Publications

- Jan. 2018 Gravitational-Wave and Neutrino Signals from Core-Collapse Supernovae with QCD Phase Transition  
Shuai Zha, Shing-Chi Leung, Lap-Ming Lin, and Ming-Chung Chu  
*JPS Conf. Proc.*, **20**, 011053
- Jun. 2016 Surface pH and Ion Affinity at the Alcohol-Monolayer/Water Interface Studied by Sum-Frequency Spectroscopy  
Yu-Chieh Wen, Shuai Zha, Chuanshan Tian, and Yuen-Ron Shen  
*The Journal of Physical Chemistry C*, **120**, 28
- Jan. 2016 Unveiling Microscopic Structures of Charged Water Interfaces by Surface-Specific Vibrational Spectroscopy  
Yu-Chieh Wen, Shuai Zha, Xing Liu, Shanshan Yang, Pan Guo, Guosheng Shi, Haiping Fang, Yuen-Ron Shen, and Chuanshan Tian  
*Phys. Rev. Lett.*, **116**, 016101
- Aug. 2014 Carbon nanodots featuring efficient FRET for two-photon photodynamic cancer therapy with a low fs laser power density  
Jing Wang, Zehui Zhang, Shuai Zha, Yinyan Zhu, Peiyi Wu, Benjamin Ehrenberg, and Ji-Yao Chen  
*Biomaterials*, **35**, 9372

## Invited talks

- Oct. 2018 ASIAA, Lunch talk  
Evolution of Super-AGB Stars Towards Accretion-Induced Collapse

- Jul. 2018      IPMU, APEC seminar  
Correlated Gravitational-wave and Neutrino Signal from Accretion-Induced Collapse of White Dwarfs
- Jul. 2016      IPMU, APEC seminar  
Accretion Induced Collapse of White Dwarf and its Possible Signals

## Conference talks and posters

- Oct. 2018      The 8th East Asian Numerical Astrophysics Meeting, NCKU, Tainan, Taiwan  
Hydrodynamic Simulation of Dark Matter Admixed Accretion-Induced Collapse: Gravitational-wave Signals
- Sep. 2018      Sixth Annual GMT Community Science Meeting, Honolulu, Hawaii  
G-wave and Neutrino Signal from Accretion-Induced Collapse of White Dwarfs
- Feb. 2017      Quarks and Compact Stars, Kyoto, Japan  
Gravitational-Wave and Neutrino Signals from Core-Collapse Supernovae with QCD Phase Transition

## Research experience

- 2017-2018      Collaborative research with Prof. Ken'ichi Nomoto in Kavli IPMU, the University of Tokyo, Tokyo, Japan

## Teaching experience

- 2015-            **Teaching assistant** General Physics, Astronomy
- 2012-2015      **Teaching assistant** University Physics, Semiconductor Physics, Nonlinear Optics

## Award

- Sep. 2017      Global Scholarship Programme for Research Excellence, CUHK

## Programming Language

*Fortran, C, matlab, Python*

## Language

Mandarin (native), English (second), Japanese (Basic)