

# Curriculum Vitae of Shengqi Yang

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## Education

**Sept. 2016-current:** Ph.D. Candidate in Physics at the New York University, New York, USA  
Expected graduation: 2021.

**Sept. 2012–June 2016:** B.S. in Physics at Fudan University, Shanghai, China.  
GPA: 3.60/4.00

**Jan. 2015-May 2015:** B.S. in Physics at National University of Singapore, Singapore.  
GPA: 3.70/4.00

## Field of expertise

Galaxy evolution, the interstellar medium, large-scale structure, data analysis, semi-analytic astronomical models

## Graduate Research Experience

**Tentative Thesis Title:** Probing interstellar medium and galaxy evolution with infrared emission lines.

- *Research Thrust 1:* Measure intensity of infrared emission lines at high redshift through cross-correlating intensity mapping surveys with galaxy spectroscopic surveys.
- *Research Thrust 2:* Simulate mock intensity mapping observations with galaxy formation semi-analytic models.
- *Research Thrust 3:* Probe correlations between ISM properties and galaxy line emissions with analytic models.

### Key Technical Skills:

- Intensity mapping foreground removal.
- ISM model building
- Galaxy formation semi-analytic model calibration.

## Publications and Manuscripts in Preparation

### Corresponding author:

1. **S Yang**, A Lidz  
“An analytic model for  $O_{III}$  fine structure emission from high redshift galaxies”  
Under review for **Monthly Notices of the Royal Astronomical Society**. arXiv:2007.14439.
2. **S Yang**, X Du, AJ Benson, AR Pullen, AHG, Peter  
“A new calibration method of sub-halo orbital evolution for semi-analytic models”  
Under review for **Monthly Notices of the Royal Astronomical Society**. arXiv:2003.10646.
3. **S Yang**, AR Pullen, ER Switzer  
“Evidence for  $C_{II}$  diffuse line emission at redshift  $z \sim 2.6$ ”.  
**Monthly Notices of the Royal Astronomical Society: Letters** 489 (1), L53-L57
4. **S Yang**, AR Pullen  
“Calibrating magnification bias for the  $E_G$  statistic to test general relativity”

**Monthly Notices of the Royal Astronomical Society** 481 (2), 1441-1454

**Non-first author:**

5. ER Switzer, CJ Anderson, AR Pullen, **S Yang**  
“Intensity mapping in the presence of foregrounds and correlated continuum emission”  
**The Astrophysical Journal** 872 (1), 82
6. PAR Ade, ..., **S Yang**  
“The Experiment for Cryogenic Large-Aperture Intensity Mapping (EXCLAIM)”  
**Journal of Low Temperature Physics**, 1-11

## Meetings and Summer Schools

Year	Dates & Location	Conference	Contribution
2019	September 4 Philadelphia, PA	U. Penn Astro Seminar	Oral Presentation
2019	August 6-9 Rochester, NY	The 2019 Great Lakes Cosmology Workshop	Oral Presentation
2018	September 28 New York, NY	The Gotham Astrofest	Oral Presentation
2018	August 27-28 Columbus, OH	Substructure Lensing with Galacticus Workshop	Oral Presentation
2018	June 18-29 Trieste, Italy	ICTP Summer School on Cosmology	

## Occupations

**Research Assistant:**

- Group of Dr. Anthony R. Pullen (Fall 2017-current).

**Teaching Assistant:**

- PHYS-UA 12 – General Physics II (Spring 2018).
- PHYS-UA 210 – Computational Physics (Fall 2017).
- PHYS-UA 7-001 – The Universe: Its Nature and History (Spring 2017).

## Awards and Honors

- NYU JAGA fellowship (2018-2019).
- First Prize of the Scholarship for Outstanding Students at Fudan University (2015).
- Honorable Mention in Mathematical Contest in Modeling (2015).