

Curriculum Vitae of Shengqi Yang

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Education

Sept. 2016–May 2021: Ph.D. in Physics at the New York University, New York, USA

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, G Popping
“The prospects for observing O_{III} 52 μ m emission from galaxies during the Epoch of Reionization”
Monthly Notices of the Royal Astronomical Society 504 (1), 727-730.
2. **S Yang**, RS Somerville, AR Pullen, G Popping, PC Breysse, A Maniyar
“Multitracer cosmological line intensity mapping mock lightcone simulation”
The Astrophysical Journal 911 (2), 132.
3. **S Yang**, A Lidz
“An analytic model for O_{III} fine structure emission from high redshift galaxies”
Monthly Notices of the Royal Astronomical Society 499 (3), 3417-3433.
4. **S Yang**, X Du, AJ Benson, AR Pullen, AHG, Peter
“A new calibration method of sub-halo orbital evolution for semi-analytic models”
Monthly Notices of the Royal Astronomical Society 498 (3), 3902-3913.

5. **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
6. **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:

1. PAR Ade, ..., **S Yang**
"The Experiment for Cryogenic Large-Aperture Intensity Mapping (EXCLAIM)"
Journal of Low Temperature Physics, 1-11
2. 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
3. T Essinger-Hileman, ..., **S Yang**
"Optical Design of the Experiment for Cryogenic Large-Aperture Intensity Mapping (EXCLAIM)"
Submitted to the **International Society for Optics and Photonics**. arXiv:2012.10481.
4. G Cataldo, ..., **S Yang**
"Overview and status of EXCLAIM, the experiment for cryogenic large-aperture intensity mapping"
Ground-based and Airborne Telescopes VIII 11445, 1144524

Invited Talks

Year	Dates & Location	Conference	Contribution
2020	October 16 Virtual	Carnegie Observatories Lunch Talk	Oral Presentation
2020	October 14 Virtual	McGill Special Seminar	Oral Presentation
2020	October 5 Virtual	UMD Astro Seminar	Oral Presentation
2020	October 2 Virtual	Caltech TAPIR Seminar	Oral Presentation
2020	September 29 Virtual	BSM Pandemic Double Feature Talk	Oral Presentation
2020	September 21 Virtual	Princeton Galread Seminar	Oral Presentation
2019	September 4 Philadelphia, PA	U. Penn Astro Seminar	Oral Presentation

Meetings and Summer Schools

Year	Dates & Location	Conference	Contribution
2020	September 28 Virtual	MIT Brown Bag	Oral Presentation
2020	September 18 Virtual	Simons Foundation CCA Galaxy Group Meeting	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).