

# Chengxuan Li

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## EDUCATION

### **College of Arts & Sciences, University of Washington, Seattle, USA**

Graduate student in Physics Ph.D. Program

*Sept 2021 – Present*

### **College of Natural Sciences and Mathematics, University of Houston, Houston, USA**

Graduate student in Physics Ph.D. Program

*Aug 2018 – July 2021*

### **School of Science, Renmin University of China, Beijing, China**

B.S. in Physics

*Sep 2014 - June 2018*

## RESEARCH EXPERIENCE

### **Exploration of actin networks in cytoskeleton with computational methods**

University of Washington, Department of Physics & University of Houston, Department of Physics & Rice University, Center for Theoretical Biological Physics | Graduate Research Assistant

Advisor: Margaret S. Cheung, Professor, Department of Physics

*May 2019 – Present*

- Studying the effect of protein mediated interactions on actomyosin network dynamics

### **How Brains Perceive Space Based on Sensory Stimulations from the Environment**

University of California Los Angeles, Elegant Mind Club | Undergraduate Research Assistant

Advisor: Katsushi Arisaka, Professor, Department of Physics and Astronomy

*July 2017 – Sep 2017*

- Confirmed that motion precedes sensory signals in human brain activity by analyzing EEG data

### **The Formation of Low-density Solid in Hybrid Dimensions Using Cold Atom**

Renmin University of China, Department of Physics | Undergraduate Researcher

Advisor: Ran Qi, Assistant Professor, Department of Physics

*May 2016 – May 2018*

- Calculated the stable molecular structure of a low-density solid using the Pseudopotential Method and modeled the molecular structure in the lowest-energy condition of one and two dimensions to form the solid lattice

## HONORS & AWARDS

- 2015 & 2017 Outstanding Class Cadre Scholarship
- 2015 Social Work and Volunteering Scholarship
- 2021 American Physical Society Division of Biological Physics Shirley Chan Student Travel Grants

## **PUBLICATIONS**

Chengxuan Li, James Liman, Yossi Eliaz and Margaret S. Cheung. “Forecasting Avalanches in Branched Actomyosin Networks with Network Science and Machine Learning.” The Journal of Physical Chemistry B (2021).

## **CONFERENCES**

Chengxuan Li, James Liman and Margaret S. Cheung, “Exploring the effect of Arp2/3 concentration on actomyosin network dynamics”, Gordon Research Conference on Protein Folding Dynamics (2020).

Chengxuan Li, James Liman, Yossi Eliaz and Margaret S. Cheung, “Exploring the effect of Arp2/3 concentration on actomyosin network dynamics”, 65th Biophysical Society Annual Meeting (2021).

Chengxuan Li, James Liman, Yossi Eliaz and Margaret S. Cheung, “Exploring the effect of Arp2/3 concentration on actomyosin network dynamics”, American Physical Society March Meeting (2021).

Chengxuan Li, James Liman, Yossi Eliaz and Margaret S. Cheung, “Forecasting Avalanches in Actomyosin Networks with Network Science and Machine Learning”, 35th Virtual Anniversary Symposium of The Protein Society (2021).

## **SKILLS AND OTHERS**

Computer Skills: Basic: Matlab

Intermediate: C++, Linux OS, Microsoft Office

Advanced: Python

Standard Tests: GRE: Verbal - 152 Quantitative - 170 Analytical Writing – 3.0

TOEFL: Total 104 (Reading 30, Listening 25, Speaking 24, Writing 25)