

# Yitong Zheng

Add: 420 Temple St., Yale University, CT, 06511, New Haven, US.

Phone: 475 837 0225

Email: zheng.yitong.physics@gmail.com

Website: <https://sites.google.com/view/yitong/home>

## EDUCATION

### Wuhan University, School of Physics and Technology

Wuhan, China

*Bachelor of Science expected*

09/2017-06/2021

- Major: **Physics** (enrolled in **Hongyi Honor Program** in 09/2018)
- Cumulative GPA: **3.97/4.0**; Rank: **1/34**

### Duke University

Durham, United States

*Visiting International Students Program*

08/2019-12/2019

- Cumulative GPA: **4.0/4.0**

### Yale University

New Haven, United States

*Mechanical Engineering and Material Science Ph.D. Program*

08/2021-Present

- Research Supervisor: Prof. Corey O'Hern
- *Physical and Engineering Biology* (PEB) Program

## RESEARCH EXPERIENCE

### Potential of Mean Force Between Like-charged Flexible Polyelectrolytes

Wuhan, China

*Research Assistant in Professor Zhi-Jie Tan's Lab at Wuhan University*

06/2019-06/2021

- Conducted Monte Carlo simulations of fixed and rotational rigid polyelectrolytes in salt solution using C language
- Analyzed simulation results
- Wrote the manuscript as first author, accepted by *Scientific Reports*

### Motion of Nanorods in An Unentangled Melt by MD Simulation

Durham, United States

*Research Assistant in Professor Michael Rubinstein's Lab at Duke University*

08/2019-12/2019

- Executed molecular dynamics simulations of nanorods diffusion in unentangled polymer melts with LAMMPS
- Analyzed simulation results

### Invasion of tumor cells into adipocyte tissue

New Haven, United States

*Ph.D. Student in Professor Corey O'Hern's Lab at Yale University*

08/2021-Present

- Conducting simulations of tumor cell invasion into adipocyte tissue with deformable particle model

## PUBLICATION

[1] Zheng Yitong, Lin Cheng, Zhang Jin-Si, Tan Zhi-Jie. *Ion-mediated interactions between like-charged polyelectrolytes with bending flexibility*. Sci Rep 10, 21586 (2020). <https://www.nature.com/articles/s41598-020-78684-6>

[2] Wang, Jiuling; O'Connor, Thomas; Grest, Gary; Zheng, Yitong; Rubinstein, Michael; Ge, Ting. *Diffusion of Thin Nanorods in Polymer Melts*. Macromolecules 2021 54 (15), 7051-7059. <https://pubs.acs.org/doi/10.1021/acs.macromol.1c00989>

## LEADERSHIP AND WORKING EXPERIENCE

### Academic Department, Students' Union, School of Physics and Technology, Wuhan University

Wuhan, China

*Deputy Director*

10/2017-10/2018

- Organized 2017-2018 China Undergraduate Physicists' Tournament (CUPT) in Wuhan University

### Men's Football Team, School of Physics and Technology, Wuhan University

Wuhan, China

*Key Member*

09/2017-06/2021

- Obtained the Second Place in the 2018 Wuhan University Men's Football League
- Obtained the Second Place in the 2020 Wuhan University Men's Football League

### Mentorship Program, Wuhan University

Wuhan, China

*Co-Founder, Mentor*

03/2021-Present

- Giving advice to students about their undergraduate career in academia and application to graduate school

## TECHNICAL SKILLS AND INTERESTS

- Programming and Software: LAMMPS, Python, C++, Matlab
- Hobbies: Soccer (13 years, captain of senior high school soccer team), Go (level: one duan)