

FAN YE

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EDUCATION

PhD, University of Cambridge, supervised by Jacob Rasmussen *2019-2022*
Department of Pure Mathematics and Mathematical Statistics (DPMMS)
Bachelor of Science, Peking University *2015-2019*
School of Mathematical Sciences (SMS)

EXPERIENCE

Visitor, Peking University *2020-2022*
Beijing International Center for Mathematical Research (BICMR)
Special Student Program, Massachusetts Institute of Technology *2018*
Department of Mathematics (Course 18)

RESEARCH

- [8] **Small Dehn surgery and $SU(2)$ representation**
(Joint with John A. Baldwin, Zhenkun Li, and Steven Sivek) In preparation
- [7] **$SU(2)$ representations and a mapping cone formula**
(Joint with Zhenkun Li) In preparation
- [6] **$SU(2)$ representations and a large surgery formula**
(Joint with Zhenkun Li) ArXiv:2107.11005
- [5] **An enhanced Euler characteristic of sutured instanton homology**
(Joint with Zhenkun Li) ArXiv:2107.10490
- [4] **Instanton Floer homology, sutures, and Euler characteristics**
(Joint with Zhenkun Li) ArXiv:2101.05169
- [3] **Sutured instanton homology and Heegaard diagrams**
(Joint with John A. Baldwin and Zhenkun Li) ArXiv:2011.09424
- [2] **Instanton Floer homology, sutures, and Heegaard diagrams**
(Joint with Zhenkun Li) ArXiv:2010.07836
- [1] **Constrained knots in lens spaces**
ArXiv:2007.04237, accepted by Algebraic & Geometric Topology

SELECTED TALKS

A large surgery formula for instanton Floer homology, Princeton *Sept. 2021*
Knot Floer homology and trisections (group report), Summer Trisection Workshop *June 2021*
Dimension bounds on sutured instanton homology, NCNGT2021 *June 2021*
Constrained knots in lens spaces, Stanford *Mar. 2021*

AWARDS AND HONORS

Smith-Rayleigh and Knight-Rayleigh Prize 2021, Group 2	<i>2021</i>
Outstanding Graduates in Peking University	<i>2019</i>
Bronze Medal in Alibaba Global Mathematics Competition	<i>2018</i>
May Fourth Scholarship from Peking University	<i>2017</i>
Winning Prize in S. T. Yau College Student Mathematics Contests	<i>2017</i>
Honorable Mention in Mathematical Contest In Modeling	<i>2017</i>
Accessit in China Undergraduate Mathematical Contest in Modeling	<i>2016</i>
Merit Student at Peking University	<i>2016</i>