

# Sungjae Chi

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## RESEARCH INTEREST

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Quantum simulation of strongly correlated quantum systems using ultracold atoms.

## EDUCATION

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**Massachusetts Institute of Technology**

Sep 2022 - Present

Ph.D. Candidate Student in Physics

- Advisor: Prof. Martin Zwierlein

**Princeton University**

Sep 2016 - May 2022

A.B. in Physics, *with Highest Honors*

GPA: 3.95/4.0

Certificate in Applications of Computing

- Thesis : “Programmable Quantum Simulation with Fermionic Atoms and Polar Molecules”
- Advisor: Prof. Waseem Bakr

**Seoul Science High School**

Mar 2013 - Feb 2016

## HONORS AND AWARDS

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**Thomas Frank Fellowship**

Sep 2022 - Aug 2023

Department of Physics, MIT

**Kusaka Memorial Prize in Physics**

May 2022

Department of Physics, Princeton University

**Phi Beta Kappa Membership**

May 2022

Phi Beta Kappa Society

**Shapiro Prize for Academic Excellence**

Sep 2020

Princeton University

**Manfred Pyka Memorial Prize in Physics**

Jun 2017, Jun 2020

Department of Physics, Princeton University

**Presidential Science Scholarship**

Sep 2016 - May 2022

Korea Student Aid Foundation (KOSAF)

**45<sup>th</sup> International Physics Olympiad, Gold Medal**

Jul 2014

Astana, Kazakhstan

## PUBLICATIONS

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- L. Christakis, J. S. Rosenberg, R. Raj, **S. Chi**, A. Morningstar, D. A. Huse, Z. Z. Yan, and W. S. Bakr, “Probing site-resolved correlations in a spin system of ultracold molecules”, (submitted), arXiv:2207.09328 (2022).
- Z. Z. Yan, B. M. Spar, M. L. Prichard, **S. Chi**, H. Wei, E. Ibarra-García-Padilla, K. R. A. Hazzard, and W. S. Bakr, “Two-dimensional programmable tweezer arrays of fermions,”, *Phys. Rev. Lett.* **129**, 123201 (2022).
- B. M. Spar, E. Guardado-Sanchez, **S. Chi**, Z. Z. Yan, and W. S. Bakr, “Realization of a Fermi-Hubbard Optical Tweezer Array”, *Phys. Rev. Lett.* **128**, 223202 (2022).

## TEACHING EXPERIENCE

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**McGraw Center for Teaching and Learning**  
Study Hall and Individual Tutor

Sep 2019 - May 2022

**The Korean Physical Society**  
Korea Physics Olympiad (KPhO) Team Assistant

Dec 2015 - Jul 2017

## WORK EXPERIENCE

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**Minds Lab Inc.**  
AI Research Intern

Jun 2019 - Aug 2019

**28<sup>th</sup> Infantry Division, Republic of Korea Army**  
Army Mechanic

Sep 2017 - May 2019