






Jee Woo Park

Department of Physics
Pohang University of Science and Technology
77 Cheongam-ro, Nam-gu,
Pohang 37673, South Korea

Phone: +82-54-279-3099
Email: jeewoopark@postech.ac.kr

Academic Employment	Assistant Professor, Pohang University of Science and Technology Atomic, Molecular, and Optical (AMO) physics Ultracold gases of atoms and molecules	2020 -
	Postdoctoral Fellow, Seoul National University Quantum Gases Laboratory of Prof. Yong-il Shin Strongly interacting atomic Fermi gases (part of the compulsory military service in Korea)	2016 - 2020
Education	Ph.D. in Physics, Massachusetts Institute of Technology Dissertation Title: "An Ultracold Gas of Dipolar Fermionic $^{23}\text{Na}^{40}\text{K}$ Molecules" Advisor: Martin W. Zwierlein	2009 - 2016
	A.B., Harvard University <i>Magna Cum Laude</i> with highest honors in Physics and Mathematics	2005 - 2009
Awards	Korean Physical Society Atomic, Molecular Physics Award	2022
	Chung-Ahm POSCO Science Fellowship	2018 - 2020
	Kwanjeong Educational Foundation Fellowship	2009 - 2013
	MIT Physics Department Thomas Frank Fellowship	2009 - 2010
	Korea Presidential Scholarship for Students in Science	2005 - 2009
	Harvard Herchel Smith Fellowship	2007
Research Highlights	"Kibble-Zurek universality in a strongly interacting Fermi superfluid" <i>Nature Physics</i> 15, 1227 (2019) First demonstration of the Kibble-Zurek mechanism in a strongly correlated many-body system	
	"Second-Scale Nuclear Spin Coherence Time of Trapped Ultracold $^{23}\text{Na}^{40}\text{K}$ Molecules" <i>Science</i> 357, 372 (2017) Realization of robust storage qubits for quantum information science in the nuclear spins of ultracold molecules; Featured on Science , "Extending the coherence time of molecules," and reported on MIT News	
	"Ultracold Dipolar Gas of Fermionic $^{23}\text{Na}^{40}\text{K}$ Molecules in their Absolute Ground State" <i>Phys. Rev. Lett.</i> 114 , 205302 (2015) First creation of chemically stable, ultracold gas of dipolar fermionic molecules; Selected as PRL Editors' Suggestion , featured on APS Physics Viewpoint and MIT News	

Publications

12. J. Chang, S. Lee, Y. Kim, Y. Lim, and **J. W. Park**
“Dual-species Bose-Einstein condensates of ^{23}Na and ^{41}K with tunable interactions”
Phys. Rev. Res. **6**, 013183 (2024)
11. Z. Z. Yan, **J. W. Park**, Y. Ni, H. Loh, S. Will, T. Karman, and M. W. Zwierlein,
“Resonant dipolar collisions of ultracold molecules induced by microwave dressing”
Phys. Rev. Lett. **125**, 063401 (2020)
10. B. Ko, **J. W. Park**^{*}, and Y. Shin^{*}, “Kibble-Zurek universality in a strongly
interacting Fermi superfluid” *Nat. Phys.* **15**, 1227 (2019)
(*corresponding authors)
9. **J. W. Park**, B. Ko, and Y. Shin, “Critical Vortex Shedding in a Strongly Interacting
Fermionic Superfluid” *Phys. Rev. Lett.* **121**, 225301 (2018)
8. **J. W. Park**, Z. Z. Yan, H. Loh, S. Will, and M. W. Zwierlein, “Second-Scale
Nuclear Spin Coherence Time of Trapped Ultracold $^{23}\text{Na}^{40}\text{K}$ Molecules” *Science*
357, 372 (2017)
7. S. Will, **J. W. Park**, Z. Z. Yan, H. Loh, and M. W. Zwierlein, “Coherent Microwave
Control of Ultracold $^{23}\text{Na}^{40}\text{K}$ ” *Phys. Rev. Lett.* **116**, 225306 (2016)
 
6. **J. W. Park**, S. Will, and M. W. Zwierlein, “Ultracold Dipolar Gas of Fermionic
 $^{23}\text{Na}^{40}\text{K}$ Molecules in their Absolute Ground State” *Phys. Rev. Lett.* **114**, 205302
(2015)  
5. **J. W. Park**, S. Will, and M. W. Zwierlein, “Two-Photon Pathway to Ultracold
Ground State Molecules of $^{23}\text{Na}^{40}\text{K}$ ” *New J. Phys.* **17**, 085002 (2015)
4. C.-H. Wu, **J. W. Park**, P. Ahmadi, S. Will, and M. W. Zwierlein, “Ultracold
fermionic Feshbach molecules of $^{23}\text{Na}^{40}\text{K}$ ” *Phys. Rev. Lett.* **109**, 085301 (2012) 
3. **J. W. Park**, C.-H. Wu, I. Santiago, T. G. Tiecke, S. Will, P. Ahmadi, and M. W.
Zwierlein, “Quantum degenerate Bose-Fermi mixture of chemically different atomic
species with widely tunable interactions” *Phys. Rev. A* **85**, 051602 (2012)
2. C.-H. Wu, I. Santiago, **J. W. Park**, P. Ahmadi, M. W. Zwierlein, “Strongly
interacting isotopic Bose-Fermi mixture immersed in a Fermi sea” *Phys. Rev. A* **84**,
011601 (2011)
1. K. Heo, **J. W. Park**, J.-E. Yang, J. Koh, J.-H. Kwon, Y. M. Jhon, M. Kim, M.-H. Jo,
and S. Hong “Large scale assembly of highly flexible low-noise devices based on
silicon nanowires” *Nanotechnology* **21**, 145302 (2010)