

Letter of Recommendation

Prof. Park

- Courses taken : Classical Mechanics I, II, Mathematical Physics II, Advanced Mechanics;
 - Presentation on string theory in Adv. Mech.
- Research; overcoming adversities, project management skills, passion in studying new topics and skills, ability in communicating research progress
 - Weekly presentations on field theory, gravity
 - * March 23'~ : presentations based on content in Schwartz and Carroll
 - * April 24' : online presentations while on exchange student about paper on BRST formalism
 - * May 24' : talk on inflationary cosmology given to freshmen and juniors
 - Analytic and numerical calculations with Mathematica
 - * May 23'~ : Analytic calculations
 - * Jan 24'~ : Numerical calculations
 - Writing academic papers
- Courses : excellence, passionate participation
 - Note : Classical Mechanics I, II, Mathematical Physics II, Advanced Mechanics
 - Presentation on string theory in Adv. Mech.
- Research : tenacity in overcoming adversities, passion in learning new skills and - Analytic calculations utilising Mathematica -
 - Self study field theory, gravity etc.
 - * Weekly presentations on things he studied
 - Attention to detail in mathematics and passion towards topics presented
 - Particularly memorable : online presentations during exchange student about paper on BRST formalism, talk on inflation cosmology given to freshmen

Through teaching him and advising his research for over a year, I can advocate that he is one of the most brilliant students I have encountered. He has consistently displayed a great passion in studying both textbook physics and keeping up with current research, a tenacious ability to overcome adversities, and the

Prof. Hwang

fast learner As his research advisor for Fall 2023, I was continued to be surprised by his immense passion in studying not only physics but also the mathematical side of the theory, and how quickly he could understand research problems and begin working on them. I most strongly recommend him for your graduate program, as

Prof. Kim

overcoming difficulties, creativity

He was one of the top students in my General Relativity course, and within the time he has participated in my research group he has shown an outstanding talent in conducting research on deep learning in physics. His care to detail and keen eye for nuance pairs with his resilience towards obstacles in research, making him a brilliant candidate for your graduate program.

Under my group he participated in two research programs and a seminar, all three which I gave him a leading role based on his foremost performance in an internship this summer. The research I directly advised him on was on applying deep learning to recover potentials from energy spectra. Throughout research his conduct was diligent and meticulous; his survey of numerical methods appropriate for the project was particularly memorable and well communicated. His team ran into several issues obtaining results, but he constantly communicated with his advisors and colleagues in his attempts to understand the underlying issues. He demonstrated great aptitude in managing multiple projects at a time, and

Personal Statement

- Military service
- Orchestra
- Exchange student in UC Berkeley

My experiences in the ROK Air Force, a university orchestra, and as an exchange student at UC Berkeley have all taught me to adapt and work well in diverse settings. Each role gave me skills in discipline, collaboration, and cultural awareness

that I believe will be valuable in graduate school.

In the ROK Air Force, I worked as an interpreter on a base shared with the U.S. Air Force, where I handled not only translation but also customer service, tech support, and administrative work. Six months in, my senior was dismissed unexpectedly, and I had to take on his responsibilities while balancing my own. This forced me to find ways to streamline my work and create an efficient workflow, which I developed within a month. This experience taught me that discipline is not just about following orders—it's also about setting high standards for yourself and working efficiently to reach them. This approach has prepared me to manage complex tasks in my future studies.

My time in my university's orchestra, where I play the clarinet, also taught me the importance of balancing personal effort with group commitment. Our performance in autumn 2023 was a high point, as we worked to bring together new members after years without live performances due to COVID. As someone who often takes on an organizing role, I understood that the challenge was not just musical but also about keeping people engaged. This experience taught me how to create a motivating environment, an ability that I know will be useful in collaborative research settings.

Finally, my semester at UC Berkeley gave me a new perspective on both academics and diversity. Although I initially chose Berkeley because it was the best option my university offered, I quickly came to value its open and collaborative academic culture. I noticed that students there were much more active in asking questions, which encouraged me to engage more actively myself. Outside the classroom, I experienced a level of diversity and openness that was new to me, coming from a more homogeneous culture in Korea. This made me realize the importance of diverse viewpoints and strengthened my commitment to working in multicultural environments.

Through these experiences, I've become more adaptable, collaborative, and culturally aware. I am excited to bring these skills to graduate school, where I am eager to take on new challenges and contribute to a diverse academic community.