

# DAEGEUN JO

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## EDUCATION

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Ph.D. student in physics

**Pohang University of Science and Technology**

📅 2017 – current

📍 Pohang, Republic of Korea

Advisor: Prof. Hyun-Woo Lee

Research project: Geometrical phase effects and orbital physics in magnetic nanostructures

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B.S. in physics

**Hanyang University**

📅 2017

📍 Seoul, Republic of Korea

## EXPERIENCE

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Teaching Assistant

**Pohang University of Science and Technology**

📅 2017 – 2018

📍 Pohang, Republic of Korea

- 2018 Analytical Mechanics for graduate students
  - 2017 General Physics II for undergraduate students
  - 2017 General Physics Lab. I for undergraduate students
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Military Service

**Weather Group of Republic of Korea Air Force**

📅 2012 – 2014

📍 Republic of Korea

- Discharged at the rank of sergeant

## AWARDS & HONORS

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- 2021 Silver Prize at the 27th Samsung Humantech Paper Award
- 2018 Global Ph.D. Fellowship (funded by National Research Foundation)
- 2011 National Science & Technology Scholarship (funded by Korea Student Aid Foundation)

## PUBLICATIONS

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- D. Go, D. Jo, T. Gao, K. Ando, S. Blügel, H.-W. Lee, and Y. Mokrousov, "Orbital rashba effect in surface oxidized cu film", arXiv:2011.08601 (2021).
- K. Z. S. Han, M. J. C. Youjin Lee, J. Kim, I. Hwang, S. Son, J. Shin, M. Lim, D. Jo, K. Kim, D. Kim, H.-W. Lee, and J.-G. Park, "Gigantic current control of coercive field and magnetic memory based on nanometer-thin ferromagnetic van der waals fe<sub>3</sub>gete<sub>2</sub>", Advanced Materials **33**, 2004110 (2021).
- J. Kim, D. Go, H. Tsai, D. Jo, K. Kondou, H.-W. Lee, and Y. Otani, "Nontrivial torque generation by orbital angular momentum injection in ferromagnetic-metal/cu/al<sub>2</sub>o<sub>3</sub> trilayers", Phys. Rev. B **103**, L020407 (2021).
- Z. C. Zheng, Q. X. Guo, D. Jo, D. Go, L. H. Wang, H. C. Chen, W. Yin, X. M. Wang, G. H. Yu, W. He, H.-W. Lee, J. Teng, and T. Zhu, "Magnetization switching driven by current-induced torque from weakly spin-orbit coupled zr", Phys. Rev. Research **2**, 013127 (2020).
- D. Jo, D. Go, and H.-W. Lee, "Gigantic intrinsic orbital hall effects in weakly spin-orbit coupled metals", Phys. Rev. B **98**, 214405 (2018).
- D. Go, D. Jo, C. Kim, and H.-W. Lee, "Intrinsic spin and orbital hall effects from orbital texture", Phys. Rev. Lett. **121**, 086602 (2018).

## PRESENTATIONS

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### Oral

- "Giant intrinsic orbital Hall effects in weakly spin-orbit coupled metals", American Physical Society March Meeting 2019, Boston, USA, Mar. 4-8, 2019
- "Intrinsic Orbital Hall Effects in Elemental Solids", 11th BK21+ Young Physicists Workshop, Pohang, Korea, Feb. 14-15, 2019

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### Poster

- "Orbital Hall effect and orbital torque in weakly spin-orbit coupled materials", Samsung Global Research Symposium, Seoul, Korea, Nov. 22-23, 2019
- "Giant Intrinsic Orbital Hall Effects in Light Metals", 15th SRC Winter Workshop on Topological Matter, Pohang, Korea, Jan. 30-31, 2019
- "Gigantic intrinsic orbital Hall effects in weakly spin-orbit coupled materials", International School on Spintronics and Korea-Japan Spintronics Workshop, Nagoya, Japan, Jan. 21-22, 2019
- "Giant intrinsic orbital Hall effects in weakly spin-orbit coupled systmes", 2018 Korean Physical Society Fall Meeting, Changwon, Korea, Oct. 24-26, 2018