

Hyunwoo Will Kwon

Lecturer (with the rank of Lieutenant)
Republic of Korea Air Force Academy
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Employment

Lecturer with the rank of Lieutenant (non-tenure track)

Republic of Korea Air Force Academy

– Mandatory military service (to be completed at 2022. 5. 31.)

Cheongju, Korea

2019.9 – 2022.5.

Education

Sogang University

M.S. in Mathematics (Advisor: Prof. Hyunseok Kim)

Thesis: Dirichlet and Neumann problems for elliptic equations with singular drifts on Lipschitz domains

Seoul, Korea

2017.2 – 2019.2

Sogang University

B.S. in Mathematics, *Summa Cum Laude*

Seoul, Korea

2013.2 – 2017.2

Research Interests

Partial differential equations, Real variable methods in harmonic analysis

Publication and Preprints

1. *Elliptic equations with drifts in L^2 on Lipschitz domains in \mathbb{R}^2* , [arXiv:2104.01300 \[math.AP\]](#), submitted for publication.
2. *Existence and uniqueness of weak solution in $W^{1,2+\varepsilon}$ for elliptic equation with drifts in weak- L^n spaces*, *J. Math. Anal. Appl.* 500(1) (2021) 125165, [arXiv:2011.07524 \[math.AP\]](#)
3. *Dirichlet and Neumann problems for elliptic equations with singular drifts on Lipschitz domains*, with H. Kim, [arXiv:1811.12619 \[math.AP\]](#), submitted for publication.

Awards, Grants & Honours

BK Plus Scholarship, Sogang University	2017
Albatross Fellowship (full funding support, 2 years), Sogang University	2017
President prize for highest achievement in academic(1%), Sogang University	2015
Dean's List of Natural Science, Sogang University for highest achievement in academic	2014
Full Funding Scholarship(7 semesters) from Hyundai Chung Mong-Koo Foundation	2013

Teaching

Lecturer Republic of Korea Air Force Academy	Cheongju, Korea Sep. 2019 – Present
– 2021-2 Linear Algebra (Humanities, 2 class), (Science, 1 class)	
– 2021-1 Calculus (Science, 2 classes), Engineering Mathematics I	
– 2020-2 Linear Algebra (Humanities), Engineering Mathematics I, Engineering Mathematics II	
– 2020-1 Calculus (Humanities), Engineering Mathematics I (2 classes)	
– 2019-2 Linear Algebra (Science, 3 classes), Engineering Mathematics I	
Coordinator of Undergraduate Seminar in Sogang Math Honors Club Sogang University	Seoul, Korea Apr. 2017 – Aug. 2017
– 2017-1 Introduction to Hilbert Spaces	
Recitation Instructor and Grader Sogang University	Seoul, Korea Mar. 2017 – Feb. 2019
– 2018-2 Advanced calculus II (Recitation instructor, Grading)	
– 2018-1 Advanced calculus I, Theory of complex variable I (Grading)	
– 2017-2 Advanced calculus II (Recitation instructor, Grading)	
– 2017-1 Advanced calculus I (Recitation instructor)	
Mathematics Tutor Sogang University	Seoul, Korea Mar. 2016 – Dec. 2016
– Worked as a tutor at Sogang Mathematics Learning Center	
– Helped several subjects which use mathematics	

Talks in Mathematics

$W^{1,2+\varepsilon}$-results for elliptic equations with singular drifts in weak L^n-spaces Contribution talks in Analysis session, 2021 Spring Meeting of KMS	Apr. 2021
$W^{1,2+\varepsilon}$-results for elliptic equations with drifts in weak L^n-spaces KIAS Analysis, PDE & Probability Seminar	Jan. 2021
Elliptic equations with singular drifts on Lipschitz domains HA-GMT-PDE seminar at University of Minesotta	Sep. 2020
Elliptic equations with singular drifts on Lipschitz domains KIAS Analysis, PDE & Probability Seminar	Dec. 2019

Neumann problems for elliptic equations with singular drifts on Lipschitz domains Contribution talks in Analysis session, 2019 Spring Meeting of KMS	Oct. 2019
Elliptic equations with singular drifts on Lipschitz domains IBS-CGP Seminar (Host: Dr. Jin Woo Jang)	Jan. 2019
L^2-boundedness of the Cauchy integral operator on Lipschitz curves KIAS Analysis&PDE Learning seminar	Oct. 2018
Dirichlet problems for elliptic equations with singular drifts in Lipschitz domains Contribution talks in Analysis session, 2018 Joint Meeting of KMS and DMV	Oct. 2018
Dirichlet problems for elliptic equations with singular drifts in Lipschitz domains Graduate student seminar, Yonsei University	Sep. 2018
The resolution of Hilbert's 19th problem Graduate student seminar, Sogang University	Sep. 2018
Elliptic equations with singular drifts on Lipschitz domains Workshop for students in Analysis and PDE	Jul. 2018

Work Experience

\LaTeX Technician Freelancer	Seoul, Korea 2014 - 2019.2.
<ul style="list-style-type: none"> - Made several books with Kyungmoon Publisher and the others - Technical Editor for Publication of ICM 2014 Seoul, Korea 	

Academic Services

Organizer of workshop Workshop for students in Analysis and PDE	Seoul, Korea July. 2018
Co-organized with H. Kim (Sogang Univ.), Y.-R. Lee (Sogang Univ.) and S. W. Ryoo (SNU) : homepage	
Founder and Orgernizer of Undergraduate Mathematics Seminar United Mathematics club in Korea : Stupid Mathematics Seminar	Seoul, Korea Feb. 2014 – Feb. 2016

Conference and Workshop Attended (will attend)

- Yonsei Ewha Sogang Seminar on Analysis & PDEs, Online via Zoom, 2021.01.20.
- Workshop on Harmonic Analysis Techniques for PDEs, JBNU, Jeonju, Korea, 2019.12.13 – 2019.12.14.
- The 3rd meeting of Young PDE researchers in PDEs, KIAS, Seoul, Korea, 2018.12.13 – 2018.12.14.
- Workshop for students in Analysis and PDE(as a organizer and speaker), Sogang Univ., Seoul, Korea, 2018. 07. 12 – 2018. 07. 13.
- Dynamics of partial differential equations, KAIST, Daejeon, 2018. 06. 27 – 2018. 06. 29.
- 2018 Korea PDE School #8, NIMS, Daejeon, 2018. 01. 29 – 2017. 02. 02.
- Minicourse: General relativity in spherical symmetry, KIAS, 2017.04.07 – 2017.04.28.
- Lecture Series on various topics in PDEs, KIAS, Seoul, Korea, 2017.02.13 – 2017.02.17 / 2017.02.20 – 2017.02.24.
- 2017 Korea PDE School #7, NIMS, Daejeon, 2017. 01. 16 – 2017.01.20.
- 2016 CMC Foundations for Mathematical Challenge: Solitons in the Korteweg-de Vries equations, inverse scattering approaches, KIAS, Seoul, Korea, 2016. 08. 22 – 2016. 08. 26.
- IBS-CGP Mathematics Festival 2016, IBS Center for Geometry and Physics, Pohang, 2016. 07. 18 – 2016. 07. 22.
- 7th Workshop on PDEs of Mathematical Physics, UNIST, Ulsan, 2016. 01. 14 – 2016. 01. 16

Updated: July 28, 2021