Minsung Kim

CONTACT INFORMATION	Centro di Ricerca Matematica Ennio De Giorgi Scuola Normale Superiore

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Pisa PI 56100, Italy

RESEARCH INTERESTS

Smooth ergodic theory / Parabolic dynamics and its connections with number theory, geometry and representation theory / Random walks and its applications.

ACADEMIC APPOINTMENT

Scuola Normale Superiore, Pisa, Italy.

- Junior visitor in Centro Ennio De Giorgi. Oct. 2022 - present
  (Mentor: Professor. Stefano Marmi.)

Nicolaus Copernicus University, Toruń, Poland.

- Research associate. Jan. 2021 - Sep. 2022
  (Mentor: Professor. Krzysztof Frączek.)

EDUCATION

Ph.D. Mathematics, University of Maryland - College Park. Dec. 2020

- Advisor: Professor. Giovanni Forni.

- Visiting doctorant, Institut de Mathematiques de Jussieu - Paris Rive Gauche.
  Oct 2017 - Août 2018, Jan 2019 - Juin 2019

M.S. Mathematics, North Carolina State University. May 2013
(Advisor: Professor. Robert H. Martin, Jr.)

B.S. Mathematics education, Pusan National University. Aug 2011
(Advisor: Professor. Jae Keol Park.)

PUBLICATIONS AND PREPRINTS

1. Limit theorem for higher rank action on Heisenberg manifolds.
Discrete and Continuous Dynamical Systems, Vol. 42, No. 9, September 2022

2. Effective equidistribution for generalized higher step nilflows.
Ergodic Theory and Dynamical Systems, 42(12), 3656-3715, December 2022

3. New phenomena for deviation of Birkhoff integrals for locally Hamiltonian flows.
(with Krzysztof Frączek)   arXiv:2112.13030

SEMINAR AND CONFERENCE TALKS

Dynamics seminar, IBS-Center for Geometry and Physics, Pohang, Korea	Jan 2023
Ergodic theory seminar, Nicolaus Copernicus University, Toruń, Poland	Dec 2022
Special seminar for new junior visitors, Scuola Normale Superiore, Pisa	Nov 2022
Zoominar in Dynamical Systems at Porto	June 2022
Ergodic theory and Dynamical systems, POSTECH, Pohang, Korea	May 2022
Dynamics seminar, Centro De Giorgi(Sculola Normale Superiore), Pisa	Apr 2022
Dynamics seminar, IMPAN(Polish Academy of Sciences), Warsaw, Poland	Mar 2022
Probability seminar, IMPAN(Polish Academy of Sciences), Sopot, Poland	Nov 2021
Analysis seminar, Saitama University, Saitama, Japan	Oct 2021
Ergodic theory and Dynamical systems, POSTECH, Pohang, Korea	Sep 2021

	Seminar in Ergodic theory and Dynamical systems, KIAS, Seoul, Korea	Aug 2021
	Ergodic theory and Dynamical systems, Nicolaus Copernicus University	Mar 2021
	(2 talks) Toruń, Poland	Feb 2021
	Workshop in Dynamical Systems and Related Topics, Penn State University	Sep 2019

SELECTIVE CONFERENCE ATTENDED	Statistical and Computational Aspects of Dynamics, Pisa, Italy	Dec 2022
	Combinatorics, Dynamics and Geometry on Moduli Spaces, CIRM.	Sep 2022
	First Dynamical Systems Summer Meeting, Będlewo, Poland	Aug 2021
	Spring School on Transfer Operators (Classical and Modern Techniques) EPFL. (Online)	Mar 2021

TEACHING EXPERIENCE

Teaching Assistant. UMCP.

- Sole Contact Instructor
    - *Introduction to Probability (MATH 111)*   Spring 2014

- Discussion Leader
    - *Calculus II (MATH 141)*   Fall 2014, Spring 2015
    - *Differential Equations for Scientists and Engineers (MATH 246)*   Sp 2016,20
    - *Calculus for Life Sciences II (MATH 131)*   Spring 2017
    - *Calculus III (MATH 241)*   Fall 2018, 2019, 2020

- Grader

    Advanced Calculus 1,2 (MATH 410, 411), Introduction to Dynamics and Chaos (MATH 452), Introduction to Topology (MATH 432), Differential Forms and Their Applications (MATH 437), Real Analysis I* (MATH 630), Dynamical systems I* (MATH 642), Differential Geometry* (MATH 740)   * for grad course.

- Directed Reading Program Mentor

    Rebecca Hsu, Riemann mapping Theorem.   Summer 2014

Lecture Assistant. NCSU.

- Instructor
    - *Contemporary Mathematics (MA 103)*   Summer II 2012

- Grader
    - *Introduction to Finite Mathematics with Applications (MA 114)*   Spring 2013
    - *Calculus for Life and Management Sciences (MA 231)*   Fall 2012

EXPERIENCE	Organizer, seminari di Sistemi Dinamici, Scuola Normale Superiore - Uni.Pisa	2023
	Student Dynamics Seminar Organizer, University of Maryland	Fall 2015 - Fall 2016
	University of Hawaii at Hilo, Exchange student, Mathematics.	Fall 2009 - Spring 2010
	Republic of Korea Army, completion of military service	July 2006 - July 2008

LANGUAGE	Korean (native), English (fluent), French (elementary), Italian, Polish (beginner)