

Hanul Jeon

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Last updated: 2024-06-20

Education

Ph.D.

Cornell University, Advisor: Justin Moore and James Walsh

Mathematics

Aug 2021 –

M.Sc.

Seoul National University, Advisor: Otto van Koert

Mathematics

Mar 2017 – Feb 2021

Thesis: Constructive Ackermann's interpretation

B.Sc.

Sunkyunkwan University

Mathematics

Mar 2013 – Feb 2017

Experience

Republic of Korea Air Force

Compulsory military service

Aug 2017 – Jul 2019

Publications

- [1] Kinkar Ch Das, Han-ul Jeon, and Nenad Trinajstić. “Comparison between the Wiener index and the Zagreb indices and the eccentric connectivity index for trees”. In: *Discrete Applied Mathematics* 171 (2014), pp. 35–41.
- [2] Hanul Jeon. “Constructive Ackermann's interpretation”. In: *Annals of Pure and Applied Logic* 173.5 (2022), p. 103086.
- [3] Hanul Jeon. *On a cofinal Reinhardt embedding without Powerset*. 2024. arXiv: 2406.10698 [math.LO].
- [4] Hanul Jeon. *On Separating Wholeness Axioms*. 2023. arXiv: 2308.03649 [math.LO].
- [5] Hanul Jeon. *The behavior of higher proof theory I: Case Σ_2^1* . 2024. arXiv: 2406.03801 [math.LO].
- [6] Hanul Jeon. *The proof-theoretic strength of Constructive Second-order set theories*. 2023. arXiv: 2312.12854 [math.LO].
- [7] Hanul Jeon and Richard Matthews. “Very large set axioms over constructive set theories”. To appear in: *Bulletin of Symbolic Logic* (2024).
- [8] Hanul Jeon and James Walsh. *Generalized ordinal analysis and reflection principles in set theory*. 2023. arXiv: 2312.12859 [math.LO].

Teaching Experiences

Grader

History of Mathematics

Spring 2023

Grader

Applied logic

Fall 2023

Grader

Introduction to Analysis

Spring 2023

Grader

Mathematical Logic

Fall 2022

Tutor

Sublime Learning Community Tutoring

Spring, Summer, Fall 2020

Covered Mathematics and its practice (Spring 2020) and Mathematics for biological scientists (Summer 2020, Fall 2020).

Grader

Mathematics for ecologists

Fall 2020

Teaching Assistant and Grader

Advanced Mathematics and its practice II.

Fall 2020

Equivalent to Multivariable Calculus Honors. Managed students' presentation.

Teaching Assistant and Grader

Logic and Set theory

Spring 2020

Teaching Assistant and Grader

Mathematics and its practice II.

Fall 2019, Summer 2020, Winter 2020

Equivalent to Multivariable Calculus. Managed an exercise course.

Teaching Assistant and Grader

Mathematics and its practice I.

Spring 2017, Spring 2019

Equivalent to Calculus. Managed an exercise course.

Tutor

Sunkyun Tutoring for Advanced Algebra

Spring 2016

Covered Chapters 4 and 5 of Hungerford's *Algebra*

Grants and Fellowships

The National Scholarship for Science and Engineering:

Mar 2013 - Dec 2016

Talks

On Separating Wholeness Axioms

2024 North American ASL Annual Meeting

Iowa State University

May 2024

Proof theory for higher pointclasses

UPenn Logic and Computation Seminar

University of Pennsylvania

April 2024

On Separating Wholeness Axioms

Korean Logic Day

Virtual

Jan 2024

On Separating Wholeness Axioms

Cornell Logic Seminar

Cornell University

May 2023

Very large set axioms over constructive set theories

Cornell Logic Seminar

Cornell University

Apr 2022

Consequences of the axiom of choice

Olivetti Club

Cornell University

Mar 2022

Goodstein's theorem

Madmathematics Seminar

Seoul National University

Oct 2016

What is forcing?

Madmathematics Seminar

Seoul National University

Nov 2015

A Short introduction to mathematical logic

Madmathematics Seminar

Sogang University

Jan 2014