Tetsuya Ishiu Department of Mathematics Miami University 123 Bachelor Hall Oxford, OH 45056

#### CURRICULUM VITAE

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### Research Interest

• Set Theory

#### Education

(513)593-2616

- Ph.D., University of California, Irvine, USA, June 2003 Advisor: Matthew Foreman
  - Thesis title: Club Guessing Sequences and Filters
- Master's degree, Waseda University, Tokyo, Japan, March 1997
  Bachelor's degree, Waseda University, Tokyo, Japan, March 1995

## Work Experience

- Associate Professor at Miami University, August 2012–present
- Assistant Professor at Miami University, August 2006–July 2012
- Assistant Professor at the University of Kansas, August 2003–May 2006
- **Grader** at the University of California, Irvine, January 1998–June 2003
- **Tutor** in Mathematics Tutoring Center at the University of California, Irvine, January 1998–June 2003

## **External Research Funding**

• NSF grant DMS-0700983, 2007-2010, \$92,863

# **Internal Research Funding**

- October 2006: Summer Research Appointment, \$6,200, funded for Summer 2007.
- October 2010: Summer Research Appointment, \$6,200, funded for Summer 2011.
- October 2020: Summer Research Appointment, \$6,200, funded for Summer 2021.

# Publications and Other Papers

[1] Directive trees and games on posets (with Yasuo Yoshinobu), Proceedings of the American Mathematical Society, 130(2002), 1477–1485.

- [2] A perfectly normal nonreal compact space consistent with  $MA_{\aleph_1}$  (with Fernando Hernández-Hernández), Topology and Its Applications, 143(1-3)(2004), 175-188.
- [3] Club guessing sequences and filters, Journal of Symbolic Logic, 70(4)(2005), 1037–1071.
- [4]  $\alpha$ -properness and Axiom A, Fundamenta Mathematicae, 186(2005), 25–37.
- [5] More on perfectly normal, non-realcompact spaces, Topology and Its Applications 153(9)(2006), 1476–1499
- [6] A tail club guessing ideal can be saturated without being a restriction of the non-stationary ideal, The Notre Dame Journal of Formal Logic, 46(3)(2005), 327–333.
- [7] The saturation of club guessing ideals, Annals of Pure and Applied Logic, 142(1–3)(2006), 398–424.
- [8] A fine structure construction of a perfectly normal, non-realcompact space, Topology Proceedings, 30(2)(2006), 533–545
- [9] A non-D-space with large extent, Topology and Its Applications, 155(11)(2008), 1256-1263
- [10] Minimality of non  $\sigma$ -scattered orders (with J. Moore), Fundamenta Mathematicae, 205(2009), 29–44.
- [11] On possible models of CH without locally compact sub-Ostaszewski spaces, Topology Proceedings, 36(2010), 37–50.
- [12] Club guessing sequences Natural structures in set theory (Japanese), Sugaku 62(2)(2010), 453–478 (English translation by myself appeared in Sugaku Exposition 26(2013), no. 1, 73–98).
- [13] A sequel to "a space topologized by functions from  $\omega$  to  $\omega$ " (with A. Iwasa), Topology Proceedings, 38(2011), 309–312
- [14] Some results about (+) proved by iterated forcing (with P. Larson), Journal of Symbolic Logic 77(2012), no. 2, 515–531.
- [15]  $\mathbb{P}_{\text{max}}$  variations for separating club guessing principles (with P. Larson), Journal of Symbolic Logic 77(2012), no. 2, 532–544
- [16] The termination of the higher-dimensional tarai functions (with M. Kikuchi), Information Processing Letters 115(2015) no. 2, 125-127.
- [17] The comparison of various club guessing principles, Annals of Pure and Applied Logic, 166(2015), no. 5, 583–600.
- [18] Continuous injections between products of two connected nowhere real linearly ordered spaces, Topology Proceedings, 50 (2017), 319– 333
- [19] Finite products of connected nowhere separably linearly ordered spaces, Topology and Its Applications, 300 (2021), Paper No. 107763, 21
- [20] Qualitative differences between the real line and nonseparable linearly ordered topological spaces, RIMS Kôkyûroku, 2198(2021), 32–40.
- [21] Archimedean positively ordered semigroups with maximal elements, Semigroup Forum 105 (2022), no. 1, 244–264

### **Invited Talks**

- [1] Set Theory Seminar at Nagoya University, Fall 1996.
- [2] Symposium on Set Theory and Recursion Theory at Kobe University, December 1996.
- [3] Set Theory Seminar at Waseda University, August 2001.
- [4] UCLA Logic Colloquium, April 2002.
- [5] Set Theory Seminar at Waseda University, August 2002.
- [6] UCLA Logic Seminar, March 2003.
- [7] AMS-ASL Joint Meeting at Phoenix, AMS-ASL Special Session in Infinite Combinatorics and Inner Model Theory, January 2004.
- [8] Workshop 'Singular Cardinal Combinatorics' at Banff, Canada, May 2004.
- [9] ASL Annual Meeting at the Carnegie Mellon University, Special Session in Set Theory, May 2004.
- [10] Set Theory Seminar at the Boise State University, July 2005.
- [11] Mathematical Logic Seminar at the Carnegie Mellon University, November 2005.
- [12] Topology Seminar at the University of Pittsburgh, November 2005.
- [13] Mid-Atlantic Mathematical Logic Seminar (MAMLS) in honour of Menachem Magidor's sixtieth birthday at the University of California, Irvine, February 2006.
- [14] The 21st Summer Conference on Topology and its Applications, at the Georgia Southern University, Special Session on Topology and Set Theory, July 2006.
- [15] AMS Central Sectional Meeting at Miami University, Special Session on Large Cardinals in Set Theory, March 2007.
- [16] Boise Extravaganza in Set Theory at Boise State University, March 2008.
- [17] BLAST conference at the University of Denver, August 2008
- [18] AMS Southeastern Sectional Meeting at Huntsville, AL, Special Session on Set-Theoretic Topology, October 2008
- [19] Colloquium at the University of Dayton, March 2009
- [20] Workshop on "Large cardinals and descriptive set theory" at the Erwin Schroedinger Institute in Vienna, June 2009
- [21] The 48th Annual Spring Topology and Dynamics Conference at University of Richmond, March 2014
- [22] AMS Fall Southeastern Sectional Meeting, at University of North Carolina, Greensboro, November 2014
- [23] Colloquium at University of Dayton, February 2018
- [24] Set-theoretic Topology Special Session, Spring Topology and Dynamics Conference hosted by Murray State University, online, May 2021
- [25] Special Session in Set Theoretic Topology, AMS Fall Southeastern Section Meeting, online, November 2021

[26] Special Session in Set Theory and its Applications, at the CMS Winter Meeting in Toronto, December 2022. (Expected)

#### Contributed Talks

- [1] South Eastern Logic Symposium at the University of Florida, March 2003
- [2] Boise Extravaganza in Set Theory at Boise State University, March 2003
- [3] ASL Annual Meeting at the University of Illinois, Chicago, June 2003
- [4] Boise Extravaganza in Set Theory at Boise State University, March 2005
- [5] AMS-ASL Joint Meeting at San Antonio, January 2006
- [6] AMS Central Sectional Meeting at Miami University, Special Session in Large Cardinals in Set Theory, March 2007.
- [7] Set Theory Workshop "Set Theory: Reals and Topology" (online) hosted by Kyoto University Research Institute for Mathematical Sciences (RIMS), November 2020
- [8] RIMS Set Theory Workshop, Hybrid at RIMS, Kyoto University, Japan and on Zoom, October 2022.

#### Professional Activities

- Special Session 'Topology and Descriptive Set Theory' in American Mathematical Society Fall Central Sectional Meeting in September 2019 at the University of Wisconsin, Michigan. Co-organized with Paul Larson.
- Reviewed 3 grant proposals.
- Refereed 13 articles.
- Reviewed 32 articles for Mathematical Reviews and 17 articles for zbMath.
- Gave a 90-minute talk titled 'Linearly ordered sets and structured defined on them' in the 3rd Sugakuto-no-tsudoi Online (Gathering Math Lovers Online) in May 2022. Sugakuto-no-tudoi is a very successful series of meetings for professonal and amateur mathematicians.

# Service Experience

- Council on Diversity and Inclusion (CODI), Fall 2020 Present
  - CAS Representative, Fall 2020 Present
  - 'Across the Divide Subcomittee', Spring 2021 Spring 2022
  - Bias in Teaching Evaluation Subcommittee, Fall 2022 Present
- Math Department DEI Liaison, Fall 2022 Present
- Chair Search Committee, Spring 2009
- Search Committee, Fall 2014 Spring 2015

- $\bullet\,$  Internal review of the Department of Physics Program Review, Spring 2015
- Graduate School's Cross-cultural Mentoring Program, Fall 2022 Present

### **Fellowships**

- Invitation to 'Thematic Program on Set Theory and Analysis' at the Fields Institute with financial support, September–December 2002
- Scholarship from the department at the University of California, Irvine, Fall 1997–Spring 2002
- Okuma Memorial Scholarships at Waseda University, April 1992– March 1995

For more information and preprints, please refer to https://ishiut.github.io.