

CURRICULUM VITAE

Takako Nemoto

October 22, 2009

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Personal Data

Date of Birth: July 31, 1981

Nationality: Japan

Education

- B. S. in mathematics, Mathematical Institute, Tohoku University, Japan, March 2004
- M. S. in mathematics, Mathematical Institute, Tohoku University, Japan, March 2006
Thesis adviser: Kazuyuki Tanaka,
Thesis title: Infinite games in the Cantor space and subsystems of second order arithmetic
- Master class in Logic, Mathematical Research Institute, Netherlands, September 2006 - June 2007
- Doctor degree (science, mathematics), Mathematical Institute, Tohoku University, Japan, March 2009
Thesis adviser: Kazuyuki Tanaka,
Thesis title: Determinacy of Infinite Games and Reverse Mathematics

Employment

- Research Fellow of the Japan Society for the Promotion of Science
(April 2007 - March, 2009)
- Part-time Research Assistant at Mathematical Institute, Tohoku University
(April 2009 - present)
- Part-time Lecturer at Department of Electrical Engineering and Information Technology, Tohoku Gakuin University
(April 2009 - August 2009)
- Research fellow at School of Information Science, Japan Advanced Institute of Science and Technology

Publications

- On weak determinacy of infinite binary games (with M. O. Medsalem and K. Tanaka) in Study of definability in nonstandard models of arithmetic, RIMS Kökyūroku No. 1469 (2006), pp. 17-26.
- Infinite games in the Cantor space and subsystems of second order arithmetic (with M. O. Medsalem and K. Tanaka) Mathematical Logic Quarterly, Volume 53, Issue 3 (2007), pp. 226 - 236.
- Determinacy of Wadge classes and subsystems of second order arithmetic Mathematical Logic Quarterly, Volume 55, Issue 2 (2009), pp. 154-176.
- Complete determinacy and subsystems of second order arithmetic, Arnold Beckmann, Costas Dimitracopoulos, and Benedikt Löwe (eds.): Logic and Theory of Algorithms, Fourth Conference on Computability in Europe, CiE 2008, Athens, Greece, June 2008, Proceedings, Springer, Lecture Notes in Computer Science volume 5028, pp. 457-466.
- Infinite games from an intuitionistic point of view, Proceedings of 13th ESSLLI Student Session 2008, pp. 125-134.
- Weak weak König's lemma in constructive reverse mathematics, accepted for publication in the Proceedings of the 10th Asian Logic Conference.
- Determinacy of Wadge classes in the Baire space and simple iteration of inductive definition, to appear in RIMS Kökyūroku.

Talks

(refereed)

- Takako Nemoto, Complete determinacy and subsystems of second order arithmetic, Computability in Europe, Athens, June 2008
- Takako Nemoto, Infinite games from an intuitionistic point of view, European summer school of logic, language and information, student session, Hamburg, August 2008
- Takako Nemoto Weak weak König's lemma in constructive reverse mathematics, 10th Asian logic conference, Kobe, September 2008
- Determinacy of Wadge classes in the Baire space and simple iteration of inductive definition Logic Colloquium 2009, Sofia, August 2009.

(un-refereed)

- Weak weak axioms of determinacy and subsystems of second order arithmetic Young logicians' gathering Japan, Tokyo, November 2005
- Infinite games in the Cantor space and subsystems of second order arithmetic Mathematical Society of Japan meeting, Tokyo, March 2006
- A fine hierarchy of determinacy in second order arithmetic, Proof theory in arithmetic, Kyoto, August 2006
- Infinite game from an intuitionistic point of view, Symbolic Logic and Computer Science, Tokyo, September 2007
- Infinite game from the intuitionistic point of view, Mathematical Society of Japan meeting, Sendai, September 2007
- Brouwer's fan theorem vs. weak König's lemma, Young logicians' gathering Japan, Yaizu, October 2007
- Determinacy of Wadge classes and inductions of second order arithmetic, Proof theory 2007, Tokyo, December 2007
- Determinacy of Wadge classes and induction axioms of second order arithmetic, Set theory meeting in Kobe, March 2008
- Weak weak König's lemma in constructive reverse mathematics, Workshop on Constructivism, Logic and Mathematics, Kanazawa, May 2008
- Determinacy of Wadge classes in Baire space Proof theoretical study of the structure of logic and computation, Kyoto, September 2008
- Game theory in economics and Blackwell determinacy from an intuitionistic point of view Seminar on Lambda calculus and Logic in the end of summer, Kusatsu, September 2008
- The initial player is winning?—various games from an intuitionistic point of view Young logicians' gathering Japan, Tokyo, November 2008
- Hierarchy of determinacy and ACA_0^+ Sendai Logic and Philosophy Seminar, Matsushima, February 2009
- WWKL and Lebesgue measure, Miniworkshop on Logic, Constructive Mathematics, and Reverse Mathematics, Munich, August 2009

Teaching

- Teaching assistant in Analysis D (Complex analysis), Tohoku University, April 2004-September 2004
- Teaching assistant in Introduction to Mathematics B (Elementary set theory and Topology), October 2004-March 2005
- Tutor at Mathematical Institute, Tohoku University, April 2005-September 2005, April 2006-July 2006 and October 2008-January 2009
- Tutor at Office for Assistance, Support and Information in the School of Science, Tohoku University, April 2005-August 2006
- Lecture of Applied Mathematics III (Complex analysis), Department of Electrical Engineering and Information Technology, Tohoku Gakuin University. April 2009-September 2009.

List of names of referees for my work

Prof. Kazuyuki Tanaka (Thesis advisor)

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Dr. Wim Veldman (Advisor of the final assignment of master course in logic, Mathematical Research Institute, the Netherlands)

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Prof. Douglas S. Bridges

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Prof. Hajime Ishihara

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