Curriculum Vitae

Nobuko YOSHIDA

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Personal Data

Date of birth:	September 8, 1969.
Place of birth:	Nagano, Japan.
Nationality:	Japanese.[1]
Residence:	United Kingdom.
Family status:	Married, no children.

Education

Ph.D. September 1996 Keio University, Department of Computer Science. Thesis co-supervisors: Prof. Mario Tokoro and Prof. Cliff Jones. Entered April 1994. From May 1995 to May 1996, supervised by Prof. Cliff Jones as a visiting Ph.D. student in Manchester University, UK. Thesis title: "A Study of Behavioural Semantics for Concurrent Calculi".

M.Sc. March 1994 Keio University, Department of Computer Science. Thesis supervisor: Prof. Mario Tokoro. Entered April 1992. Thesis title: "Reduction-based Semantics for Concurrent Calculi".

B.Sc. March 1992 Keio University, Department of Electronic Engineering. Thesis supervisor: Prof. Mario Tokoro. Entered April 1988. Thesis title: "An Encoding of λ-calculus in Asynchronous π-calculus".

[1] I have a British visa and workpermit that are valid for my current job.

Employment History

Research Positions

- Research Fellow of the School of Cognitive and Computing Sciences at Sussex University. Professor Matthew Hennessy's EPSRC Grant entitled *Foundations for the Integration of Concurrent Distributed and Functional Computation*. May 1998 - present.
- Research Fellowship of the Japan Society for the Promotion of Science for Japanese Junior Scientists. Project No. 5414. Project title: *Type Theory and Semantic Foundation for Concurrent Calculi*. April 1997 - March 1998 (the original grant period: April 1997 - March 2000. Voluntarily resigned to take up the present position).
- Research Fellowship of the Japan Society for the Promotion of Science for Japanese Junior Scientists. Project No.2628. Project title: *Integrated Theoretical Foundation for Functional and Concurrent Computation*. April 1994 - March 1997.

Visiting Positions

- Visiting Academic. LFCS, Department of Computer Science, Edinburgh University. March 1996 to March 1998.
- Split PhD student. Department of Computer Science, Manchester University. Supervisor: Professor Cliff Jones. May 1995 to May 1996.

Award

The best technical paper of *Journal of Computer Software*: "Reduction-based Semantics for Concurrent Calculi" with Kohei Honda, pp.2–20, Vol.11, No.5, Japan Society for Software Science and Technology, September, 1994.

Principal Research Interests

Theoretical computer science. More specifically, theoretical aspects of two fundamental computing paradigms, concurrency and functional computing. I have been working on types for mobile processes, equational theory which can be applied to both paradigms, combinatory representation of mobile processes, game semantics and distributed higher-order processes.

List of Publications

Refereed Papers in Conference Proceedings

1. "Subtyping and Locality in Distributed Higher-Order Processes" with Matthew Hennessy, to appear in *Proc. CONCUR '99, International Conference on Concurrency Theory*, Lecture Notes in Computer Science, Springer-Verlag, September, 1999.

2. "Minimality and Separation Results on Asynchronous Mobile Processes: Representability Theorems by Concurrent Combinators". *Proc. CONCUR '98, International Conference on Concurrency Theory*, Lecture Notes in Computer Science, pp.131–146, Springer-Verlag, September, 1998.

3. "Game-Theoretic Analysis of Call-by-Value Computation" with Kohei Honda. *Proc. ICALP '97, Proceedings of 24th International Colloquium on Automata, Languages, and Programming*, Lecture Notes in Computer Science 1256, pp.225–236, Springer-Verlag, July, 1997.

4. "Graph Types for Monadic Mobile Processes". *Proc. FST/TCS '16, Proceedings of 16th Conference on Foundation of Software Technology and Theoretical Computer Science*, Lecture Notes in Computer Science 1180, pp.371–386, Springer-Verlag, 1996.

5. "Graph Notation for Concurrent Combinators". *Proc. TPPP '94, Proceedings of Theory and Practice of Parallel Programming*, Lecture Notes in Computer Science 907, pp.393–412, Springer-Verlag, 1994.

6. "Replication in Concurrent Combinators" with Kohei Honda. *TACS '94, Proceedings of the Second Conference on Theoretical Aspects of Computer Software*, Lecture Notes in Computer Science 789, pp.786–805, Springer-Verlag, April 1994.

7. "Combinatory Representation of Mobile Processes" with Kohei Honda. *POPL '94, Conference Record of the 21st Annual Symposium on Principles of Programming Languages*, pp.348–360, ACM SIGACT-SIGPLAN, January 1994.

8. "On Reduction-based Process Semantics" with Kohei Honda. *FST/TCS '13, Proceedings of 13th Conference on Foundation of Software Technology and Theoretical Computer Science*, Lecture Notes in Computer Science 761, pp.373–387, Springer-Verlag, December 1993.

9. "Optimal Reduction in Weak λ-calculus with Shared Environments". *FPCA '93, Functional Programming and Computer Architecture*, pp.243–242, ACM SIGACT-SIGPLAN, June, 1993.

Refereed Papers in Academic Journals

10. "Game-Theoretic Analysis of Call-by-Value Computation" with Kohei Honda. *Journal of Theoretical Computer Science* (a special issue for ICALP '97), North Holland.

11. "Combinatory Representation of Mobile Processes". *Journal of Computer Software*, Japan Society for Software Science and Technology, pp.23–46, Vol.13, No.4, September, 1996.

12. "π-calculus and its semantics" with Makoto Kubo and Kohei Honda. *Journal of Information Processing Society*, pp.319–326, Vol.37, No.4, April, 1996.

13. "On Reduction-based Process Semantics" with Kohei Honda. *Journal of Theoretical Computer Science* (a special issue for FST/TCS '13), pp.437–486, Vol.151, December 1995, North Holland.

14. "Optimal Reduction in Weak λ-calculus with Shared Environments". *Journal of Computer Software*, Japan Society for Software Science and Technology, pp.3–18, Vol.11, No.6, November, 1994.

15. "Reduction-based Semantics for Concurrent Calculi" with Kohei Honda. *Journal of Computer Software*, pp.2–20, Vol.11, No.5, Japan Society for Software Science and Technology, September, 1994.

Technical Publications in Workshop Proceedings

16. "Graph Types for Monadic Mobile Processes". In *Proceeding of Concurrency Theory and Applications '96*, Workshop of Research Institute for Mathematical Sciences, Kyoto University, Japan, Editor: Irek Ulidowski, No. 996, pp.22–24, July, 1996.

17. "Asynchronous ν-calculus and Interaction-Based Programming Methodologies" with Kohei Honda et al. *Research Report of Institute of Electronics, Information and Communication Engineers*, Institute of Electronics, Information and Communication Engineers, 1994.

18. "Reduction Theory for Concurrent Calculi". In *Proceeding of Concurrency Theory and Applications'94* with Kohei Honda. Workshop of Research Institute for Mathematical Sciences, Kyoto University, Japan, July, 1994.

19. "Theory and Practice of Reduction-based Semantics" with Kohei Honda. *Research Report of Information Processing Society*, 93(46), Information Processing Society, 1993.

20. "On Reduction-based Process Semantics" with Kohei Honda. *Research Report of Institute of Electronics, Information and Communication Engineers*, 92(493), 1993.

21. "λf-Calculus" with Kohei Honda and Mario Tokoro. *Proc. Ninth Annual Conference of Japanese Society of Software Science and Technology*, Japanese Society of Software Science and Technology, 1992.

Newsletters

22. "Topics: FPCA' 93". *Journal of Computer Software*, Japan Society for Software Science and Technology, pp.57–61, Vol. 11, No. 1, 1996.

Other Technical Papers

23. "Minimality and Separation Results on Asynchronous Mobile Processes: Representability Theorems by Concurrent Combinators". Available as CS Report 04/98, University of Sussex, 1998. http://www.cogs.susx.ac.uk, 1998. Submitted for publication.

24. "Graph Types for Monadic Mobile Processes". LFCS Technical Report, ECS-LFCS-96-350, Department of Computer Science, University of Edinburgh, 54pp, 1996.

25. "Combinatory Representation of Mobile Processes (I): Finite Systems" with Kohei Honda. 50 pp.

26. "Subtyping and Locality of Distributed Higher-Order Processes" with Matthew Hennessy, To appear as CS Report, University of Sussex, 1999.

Presentation and Seminar Records

Presentations in International Workshops

- MFPS '14, 14th International Workshop, Mathematical Foundations of Programming Semantics, Queen Mary and Westfield College of the University of London, UK, May 13, 1998. Title: Recent Results on Concurrent Combinators.

- HLCL '97, 2nd International Workshop, High-Level Concurrent Languages, Dagstuhl Seminar, IBIF School Dagstuhl, 21, January, 1997. Title: Graph Types for Monadic Mobile Processes.

- Concurrency Theory and Applications '96, Workshop of Research Institute for Mathematical Sciences, Kyoto University, Japan, July, 1996. Title: Graph Types for Monadic Mobile Processes.

- UK-Japan workshop on theory of computing, Manchester University, Manchester, UK, April, 1996. Title: Graph Types for Monadic Mobile Processes.

- HOOTS '95, Newton Institute for Mathematical Sciences Workshop on Higher-Order Operational Techniques in Semantics, Cambridge, October, 1995. Title: On Reduction Based Process Semantics.

- Concurrency Theory and Applications '94, Workshop of Research Institute for Mathematical Sciences, Kyoto University, Japan, July, 1994. Title: Reduction Theory for Concurrency.

- Post TACS International Workshop, Tokyo University, Japan, April, 1994. Title: On Reduction Based Process Semantics.

- Workshop of ECOOP, Amsterdam, Holland, June, 1992. Title: An Encoding of a Functional Calculus in Mobile Processes.

Presentations in Local Workshops

- Workshop of Composition and Translation of Programming held by Japanese Society of Software Science and Technology, Komazawa, Tokyo University, Japan, January 20, 1995. Title: Graph Representation for Concurrent Combinators.

- Workshop of Composition and Translation of Programming held by Japanese Society of Software Science and Technology, Japan, December, 1993. Title: Reduction Theories for Functions in Concurrency.

Seminars

- LFCS Wednesday Seminar, Edinburgh University, Scotland, December, 1997. Title: Atoms for Interaction.

- Department of Computer Science, Lisbon University, Portugal, February, 1997. Title: Graph Types for Concurrent Calculi.

- LFCS, Interaction Club Seminar, Edinburgh University, Scotland, July, 1996. Title: Graph Types for Monadic Mobile Processes.

- LFCS, Interaction Club Seminar, Edinburgh University, Scotland, April, 1996. Title: On Reduction Based Theories.

- Department of Computer Science, Tokyo University, July, 1996. Title: Graph Types for Monadic Mobile Processes.

- Department of Computer Science, Imperial College of the University of London, September 27, 1995. Title: Reduction Based Theories for Concurrent Calculi.
- Logic Seminar, Department of Philosophy, Mita, Keio University, February 13, 1995. Title: Graph Representation for Concurrent Combinators.
- Seta Seminar, Department of Computer Science, Ryukoku University, June, 1992. Title: Optimal Reduction in Weak λ-calculus with Shared Environments.

Professional Activities

- Program Committee Member of International Conference on Principles and Practice of Programming (PPDP'99: the union of two former conferences, ALP and PLILP), Paris, France, 29 September – 1 October, 1999.
- Workshop Organiser of International Workshop on Object-Oriented Specification Techniques for Distributed Systems and Behaviours. Paris, France, 27 September, 1999.

International Visitors Hosted

Vasco Vasconcelos	July 1998 (at Sussex University)	Associate Professor in Lisbon Univ.
Simon Gay	May 1995 (at Keio University)	Researcher from Imperial College
Steve Hodges	May 1995 (at Keio University)	PhD student from Manchester Univ.

Honors and Fund Raising

I have experience in writing successful grant applications. The funding by the Promotion of Science for Japanese Junior Scientists which supported me from April 1994 to March 1998 is an individual fellowship and only one researcher out of nine candidates was selected.

The following is a list of other funding I have been awarded.

- Participant in the IMSA Project (an international project on new software models). Founded by Japanese Ministry of International Trade and Industry. Keio site, titled *Basic Theory of Concurrent Agent-Oriented Computation.* April 1994 - March 1997.

- Travel Grant for the 16th Conference on Foundation of Software Technology and Theoretical Computer Science held in India, December, 1996. Funded by The Telecommunications Advancement Foundations (TAF).
- Travel Grant for the 2nd International Workshop, High-Level Concurrent Languages, Germany, Jan 1997. Funded by *Kogaku-kai*, Faculty of Science and Technology, Keio University.
- Scholarship for a Split PhD student. Funded by British Council. June 1995 to May 1996.

Membership

1992. Member, Japan Society for Software Science and Technology.

1998. Member, ACM.

1998. Member, IEEE Computer Society.