



# Naohiro Hayashibara

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## WORK EXPERIENCE



**KYOTO SANGYO UNIVERSITY, Associate Professor**  
Principle investigator. PhD supervisor.

Apr 2013 - current



**KYOTO SANGYO UNIVERSITY, Assistant Professor**  
Tenure-track position. Taught in graduate/undergraduate courses.

Apr 2008 - Mar 2013



**TOKYO DENKI UNIVERSITY, Research Associate**  
Faculty member. Taught in undergraduate courses. Working with Prof. Makoto Takizawa.

Apr 2005 - Mar 2008



**JAPAN ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY, Post-doctoral Fellow**  
2004 - Mar 2005  
Research project on failure detectors. This research was conducted as a program for the "Fostering Talent in Emergent Research Fields" in Special Coordination Funds for Promoting Science and Technology by Ministry of Education, Culture, Sports, Science and Technology, Japan.

Jul

## EDUCATION



**PHD. INFORMATION SCIENCE**  
*Japan Advanced Institute of Science and Technology*  
PhD Dissertation: Accrual Failure Detectors. This research is conducted under supervision of Prof. Takuya Katayama and Assoc. Prof. Xavier Défago.

Jun 2004



**MSC. INFORMATION SCIENCE**  
*Japan Advanced Institute of Science and Technology*

Mar 2001

## SKILLS & INTERESTS



Native Speaker



Professional Proficiency



Basic level

Distributed Systems.  
Dependable Systems.  
Meta-heuristic Algorithms.  
Bio-inspired Algorithms.

## SELECTED PUBLICATIONS

1. K. Shinki, K. Sugihara, N. Hayashibara, "Message broadcasting by opportunistic communication on unit disk graphs", *Evolutionary Intelligence*, 13(1), pp. 93-102, 2020.
2. T. Kurokawa, N. Hayashibara, "Performance evaluation of data replication protocol based on Cuckoo search in mobile ad-hoc networks", *Internet of Things*, vol. 11, 100223, 2020.
3. K. Imae, N. Hayashibara, "ChainVoxel: A Data Structure for Scalable Distributed Collaborative Editing for 3D Models", In *Proc. of DASC'16*, pp. 344-351, 2016.

4. Y. Tanaka, N. Hayashibara, T. Enokido, M. Takizawa, "A mobile agent model for fault-tolerant manipulation on distributed objects", *Cluster Computing*, 10(1), pp.81 - 93, 2007.
5. S. Itaya, N. Hayashibara, T. Enokido, M. Takizawa, "Distributed Coordination Protocols to Realize Scalable Multimedia Streaming in Peer-to-Peer Overlay Networks", In *Proc. of ICPP'06*, pp.569-576, 2006.
6. P. Urbán, X. Défago, N. Hayashibara, T. Katayama, "Definition and Specification of Accrual Failure Detectors", In *Proc. of DSN'05*, pp. 206-215 , 2005.
7. N. Hayashibara, X. Défago, R. Yared, T. Katayama, "The  $\Phi$  Accrual Failure Detector", In *Proc. of SRDS'04*, pp. 66 - 78, 2004.
8. P. Urbán, N. Hayashibara, A. Schiper, T. Katayama, "Performance Comparison of a Rotating Coordinator and a Leader Based Consensus Algorithm", In *Proc. of SRDS'04*, pp. 4 - 17, 2004.