

Max Murakami



Personal Information

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Marital Status married

Nationality German

Birthday/place 14.5.1988 in Tokyo

Education

PhD

- since 2014 **Physics**, *Goethe University*, Frankfurt am Main.
- Research area: Computational Neuroscience
 - „A Neuronal Model of Gaze-Contingent Learning”
 - Supervisor: Prof. Dr. Jochen Triesch

Studies

- 2012-2014 **Physics M.Sc.**, *Goethe University*, Frankfurt am Main.
- Minor: Japanese Studies
 - Specialization: Computational Neuroscience
 - Master thesis *Listen and Babble: A Model of Vowel Acquisition Based on Imitation Learning* with Prof. Dr. Jochen Triesch, grade 1,0
 - Final grade: 1,0 with distinction
- 2008-2012 **Physics B.Sc.**, *Goethe University*, Frankfurt am Main.
- Minor: Japanese Studies
 - Bachelor thesis *Effects of Transcranial Magnetic Stimulation on different-sized neurons* with Prof. Dr. Jochen Triesch, grade 1,0
 - Final grade: 1,6

School Education

- 1998-2007 **Abitur**, *Reichsstadt-Gymnasium*, Rothenburg ob der Tauber.
- Advanced subjects: Mathematics and Physics
 - Graduation thesis: *Principles of Data Compression*
 - Final grade: 1,7

Job Experience

- since 2014 **Frankfurt Institute for Advanced Studies**, *Scientific Assistant*,
Frankfurt am Main.
Research for DFG project *Gaze-Contingent Learning in Infants* and for EU project *Goal-based Open-ended Autonomous Learning Robots*.
- 2013-2014 **Frankfurt Institute for Advanced Studies**, *Webdesigner*, Frankfurt am Main.
Website maintenance of the Triesch lab.
- 2008 **C.F. Maier**, *Internship*, Schillingsfürst.
Quality assurance.
- 2007-2008 **Verbundklinikum Landkreis Ansbach**, *Community service*, Rothenburg ob der Tauber.
Nursing and transporting surgical patients.
- 2005-2008 **TSV 2000 Rothenburg**, *Trainer*, Rothenburg ob der Tauber.
Badminton training for high school students and adults.

Teaching Experience

- seit 2016 **seminar: Principles of Neural Science**,
Frankfurt Institute for Advanced Studies, Frankfurt am Main.
- 2014-2015 **tutorial: Theory of Special Relativity and Quantum Mechanics**,
Institute for Theoretical Physics, Goethe University, Frankfurt am Main.
- 2014 **tutorial: Electrodynamics**,
Institute for Theoretical Physics, Goethe University, Frankfurt am Main.
- 2012-2013 **tutorial: Mathematical Methods in Physics**,
Institute for Theoretical Physics, Goethe University, Frankfurt am Main.
- 2011 **tutorial: Classical Mechanics**,
Institute for Theoretical Physics, Goethe University, Frankfurt am Main.
- 2010-2011 **lab Classes**,
Institute for Applied Physics, Goethe University, Frankfurt am Main.

Publications

- 2015 **Seeing [u] aids vocal learning: babbling and imitation of vowels using a 3D vocal tract model, reinforcement learning, and reservoir computing**,
M. Murakami, B. Kröger, P. Birkholz, J. Triesch, IEEE International Conference on Development and Learning and Epigenetic Robotics (ICDL), 2015.
Conference paper
- 2014 **A Model of TMS-induced I-waves in Motor Cortex**,
C. Rusu, M. Murakami, U. Ziemann, J. Triesch, Brain Stimulation 7(3), 2014.

Conference Contributions

- 2016 **Look and Learn: A Computational Model of Gaze-Contingent Learning**,
M. Murakami, J. Bolhuis, T. Kolling, M. Knopf, J. Triesch, IEEE International
Conference on Development and Learning and Epigenetic Robotics (ICDL), 2016.
Poster
- 2015 **Seeing [u] aids vocal learning: babbling and imitation of vowels using a 3D
vocal tract model, reinforcement learning, and reservoir computing**,
M. Murakami, B. Kröger, P. Birkholz, J. Triesch, IEEE International Conference on
Development and Learning and Epigenetic Robotics (ICDL), 2015.
Talk

IT and Programming

PYTHON, C/C++, JAVA, Matlab, L^AT_EX, HTML, NEURON, Maple, Microsoft Office,
Linux, Microsoft Windows. . .

Languages

German native speaker
English business fluent
Japanese advanced (JLPT 3 kyū)
French advanced
Korean basic

Awards

- 2007 Von Staudt Award for best mathematics A level.