

# Curriculum Vitae

## Professor Dr. Martin Giese

### Personal Details:

Day of birth: 21. June 1966

Family status: married, 1 Child

Address: University of Tübingen  
Hertie Institute for Clinical Brain Research  
& Centre for Integrative Neuroscience  
Otfried-Müller-Str.25  
72076 Tübingen

Tel.: +49(0)7071 29 89 124  
Fax: +49(0)7071 29 25 014

E-mail: martin.giese@uni-tuebingen.de



### Education:

**Since 2008** Professor for Computational Sensomotrics, Center for Integrative Neuroscience (CIN) and The Hertie Institute for Clinical Brain Research (HIH), University Clinic Tübingen

**2007-2008** Senior Lecturer, School of Psychology, Bangor University, Bangor, UK

**2006** Habilitation in Informatics, University Ulm

**2001-2007** Group leader "Action Representation and Learning" (Volkswagenstiftung), University Clinic und Hertie Institute for Clinical Brain Research (HIH), University Tübingen

**2000-2001** Director, Boston Research Laboratory, Honda Americas, Boston, MA

**1998-2001** Postdoc and Visiting Researcher, Center for Biological and Computational Learning, M.I.T., Cambridge MA

**1998** PhD (Promotion) in El. Engineering (Neuroinformatics), Ruhr-University Bochum, summa cum laude

**1993** Diploma in Electrical Engineering

**1986-1993** Study of Electrical Engineering and Psychology, Ruhr-University Bochum

## Honors and Board Memberships:

- Since 2018** Member of the faculties of the Max Planck Research School for Intelligent Systems
- Since 2017** Associate Editor in Chief ACM Transactions on Applied Perception
- Since 2015** Associate editor Frontiers Computational Neuroscience
- 2008** Associate Editor of the ACM Transactions on Applied Perception
- 2001** Award of a junior research group of the Volkswagen foundation
- 1998** Fellowship of the Deutsche Forschungsgemeinschaft
- 1987-1995** Fellow of the German National Academic Foundation (Studienstiftung des deutschen Volkes)

## Scientific Interests:

- Neural models for high level vision
- Movement analysis and computational modelling of the motor system
- Motion- and action perception
- Movement disorders
- Psychophysics of action and social perception and of sensorimotor control

## Publications (selection):

Fedorov, L., Chang, D., Giese, M. A., Bühlhoff, H. & de la Rosa, S. (2018). Adaptation aftereffects reveal representations for encoding of contingent social actions. *PNAS*, *115*(29), 7515-7520.

Giese, M. A. (2016). Face Recognition: Canonical Mechanisms at Multiple Timescales. *Curr Biol.*, *26*(13), 534-537.

Endres D, Christensen A, Omlor L, Giese MA (2011) Emulating human observers with Bayesian binning: segmentation of action streams. *ACM Transactions on Applied Perception (TAP)*, *8*(3):16:1-12.

Caggiano, V., Fleischer, F., Pomper, J. K., Giese\*, M. A. & Thier\*, P. (2016). Mirror Neurons in Monkey Premotor Area F5 Show Tuning for Critical Features of Visual Causality Perception. *Curr Biol*, *26*(22), 3077-3082. (\*ec).

Omlor L, Giese MA (2011) Anechoic blind source separation using Wigner marginals. *Journal of Machine Learning Research* *12*, 1111-1148.

Christensen A, Ilg W, Giese MA (2011) Spatiotemporal tuning of the facilitation of biological motion perception by concurrent motor execution. *J. Neurosci.* *31*(9), 3493-9.

Curio C., Bühlhoff H.H., Giese M.A. (2011) *Dynamic Faces: Insights from Experiments and Computation*. MIT Press, Cambridge, MA

Caggiano V, Fogassi L, Rizzolatti G, Pomper JK, Thier P, Giese MA, Casile A\* (2011) View-based encoding of actions in mirror neurons of area f5 in macaque premotor cortex. *Curr Biol.* 21(2), 144-8.

Mukovskiy A, Slotine JJE, Giese MA (2011) Analysis and design of the dynamical stability of collective behavior in crowds. *Journal of the International Conference on Computer Graphics, Visualization and Computer Vision (WSCG)*, 1-3, 69-76

Roether CL, Omlor L, Giese MA (2008) Lateral asymmetry of bodily emotion expression. *Current Biology*, 18, R329-330

Heinrich H. Bülthoff, Christian Wallraven Martin A. Giese (2008) Handbook of Robotics Chapter 64: Perceptual Robotics: Example-based representations of shapes and movements. From: Siciliano, B., O. Khatib (eds.): Springer Handbook of Robotics, Springer, Berlin, Germany, 2008, pp. 1481-1498.

Casile A, Giese MA (2006) Non-visual motor learning influences the recognition of biological motion. *Current Biology*, 16, 69-74.

Giese MA, Poggio T (2003) Neural mechanisms for the recognition of biological movements and action. *Nature Reviews Neuroscience* 4:179-192

Giese MA (1999) Neural Field Theory of Motion Perception. Kluwer Academic Publishers, Dordrecht, Netherlands.

Leopold DA, Bondar IV, Giese MA (2006) Norm-based face encoding by single neurons in the monkey inferotemporal cortex. *Nature*, 442, 572-575

Omlor L, Giese MA (2006) Blind source separation for over-determined delayed mixtures. In: Schölkopf B, Platt J, Hoffman, T (eds): *Advances in Neural Information Processing Systems 19*, MIT Press, Cambridge MA, 1049-1056.

Casile A, Giese MA (2006) Non-visual motor learning influences the recognition of biological motion. *Current Biology*, 16, 69-74.

Ilg W, Golla H, Thier H P, Giese MA (2007) Quantification of the spatiotemporal characteristics of influences of cerebellar dysfunction on gait. *Brain*, 130, 786-98.

Roether CL, Omlor L, Giese MA (2008) Lateral asymmetry of bodily emotion expression. *Current Biology*, 18, R329-330.