

# Professor Dr. Heinrich H. Bülthoff

## Curriculum Vitae

Managing Director of the Max Planck Institute for Biological Cybernetics  
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## University Education & Degrees

1970 – 1975 University of Tuebingen Subjects: Zoology, Biochemistry, Genetics, Physics  
1975 M.S. (Diplom Biologe) University of Tuebingen  
1980 Phd (Dr. rer. nat.) University of Tuebingen  
1987 Habilitation University of Tuebingen

## Teaching & Research Appointments

1980-1985 Research Scientist, Max Planck Institute for Biological Cybernetics, Tuebingen  
1985-1988 Research Scientist, Massachusetts Institute of Technology, Cambridge, USA  
1988-1991 Assistant Professor, Brown University, Providence, USA  
1991-1992 Associate Professor, Brown University, Providence, USA  
1992 Fesler-Lampert Visiting Professor of Artificial Intelligence and Cognitive Science, University of Minnesota, Minneapolis, USA  
1992-1993 Full Professor, Department of Cognitive and Linguistic Sciences, Brown University, Providence, USA  
since 1993 Director, Department: Human Perception, Cognition and Action, Max Planck Institute for Biological Cybernetics, Tuebingen, Germany  
2009-2013 Adjunct Professor, Department of Brain and Cognitive Engineering, Korea University, Seoul, Korea

## Administrative Positions

since 2012 Managing Director of the Max Planck Institute for Biological Cybernetics

## Particular Honors

since 2005 Member of the Common Commission with the Graduate Training Center of Neuroscience, University Tuebingen  
since 2006 Member of EU Cognition European Commission  
since 2007 Member of High-level Advisory group for European Commission  
since 2015 Member of the University Council of the University Tuebingen, Germany  
since 2016 Member of the Advisory Board of the Wyss Center, Geneva, Switzerland

## Memberships in Professional Associations

since 1987 Society for Neuroscience (SfN)  
since 1995 Institute of Electrical and Electronics Engineers (IEEE)  
since 2003 Association for Computing Machinery (ACM)  
since 2004 Vision Sciences Society (VSS)  
since 2005 American Institute of Aeronautics and Astronautics (AIAA)  
since 2006 Aerospace Medical Association (AsMA)  
since 2008 American Helicopter Society (AHS)

## Patents

Bülthoff, H. H., Nusseck, H.-G.: Bildverarbeitungseinrichtung und entsprechendes Betriebsverfahren, Patent (US 8,045,052)

Bülthoff, H. H., Teufel, H. and Kerger, M.: Motion simulator and corresponding method, Patent (AU 2010353477)

Bülthoff, H. H., Robuffo Giordano, P.: Teleoperation method and human robot interface for remote control of a machine by a human operator, Patent (US 8,634,969; CN 0980158119)

Bülthoff, H. H., Teufel, H. and Miermeister, P.: Seilrobotersystem zur Bewegungssimulation Patent (DE 15/002297)

## Selected Publications

### Full list of publications available at:

<http://www.kyb.tuebingen.mpg.de/nc/employee/details/hhb.html#3>

Bülthoff HH & Götz KG (1979) *Analogous motion illusion in man and fly*. **Nature** 278(5705) 636-638.

Bülthoff HH, Little JJ & Poggio T (1989) *A Parallel Algorithm for Real-Time Computation of Motion*. **Nature** 337(6207) 549-553.

Blake A & Bülthoff HH (1990) *Does the brain know the physics of specular reflection?* **Nature** 343(6254) 165-168.

Bülthoff I, Bülthoff HH and Sinha P (1998) *Top-down influences on stereoscopic depth-perception*. **Nature Neuroscience** 1(3) 254-257.

Ernst MO, Banks MS & Bülthoff HH (2000) *Touch can change visual slant perception*. **Nature Neuroscience** 3(1) 69-73.

Newell FN und Bülthoff HH (2002) *Categorical perception of familiar objects*. **Cognition** 85(2) 113-143.

Ernst MO & Bülthoff HH (2004) *Merging the Senses into a Robust Percept*. **Trends in Cognitive Sciences** 8(4)162-169.

Welchman AE, Deubelius A, Conrad V, Bülthoff HH und Kourtzi Z (2005) *3D shape perception from combined depth cues in human visual cortex*. **Nature Neuroscience** 8(6) 820-827.

Welchman AE, Lam JM und Bülthoff HH (2008) *Bayesian motion estimation accounts for a surprising bias in 3D vision*. **Proceedings of the National Academy of Sciences of the United States of America** 105(33) 12087-12092.

Fleming RW, Holtmann-Rice D & Bülthoff HH (2011) *Estimation of 3D shape from image orientations*. **Proceedings of the National Academy of Sciences of the United States of America** 108(51) 20438-20443.

Meilinger T, Strickrodt M und Bülthoff HH (2016) *Qualitative differences in memory for vista and environmental spaces are caused by opaque borders, not movement or successive presentation*. **Cognition** 155 77–95.

Ferstl Y, Bülthoff HH und de la Rosa S (2017) *Action recognition is sensitive to the identity of the actor*. **Cognition** 166 201–206.