

**CURRICULUM VITAE****Prof. Dr. Heinrich H. Bülthoff**

Director of the Department Human Perception, Cognition and Action  
at the Max Planck Institute for Biological Cybernetics, Tübingen, Germany

Distinguished Professor of the Department of Brain and Cognitive Engineering  
College of Information and Communication, Korea University, Seoul, Korea



Current Position: Director of the Department Human Perception, Cognition and Action

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**EDUCATION AND ACADEMIC DEGREES**

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|-------------------|---|
| 1991              | Brown University, Providence, USA, Gradum Artium Magisteri Ad Eundem Gradum Promotum, Cognitive Science, Prof. Peter Eimas  |
| 1987              | Eberhard Karls University, Tübingen, Germany, Habilitation, Prof. D. Varju  |
| 1980              | Eberhard Karls University, Tübingen, Germany, Phd in Biology, Prof. D. Varju and Prof. K. Götz  |
| 10/1970 - 05/1975 | Study of Biology (Diploma), subjects: Zoology, Biochemistry, Physics, Genetics, System Theory, Chemistry, Prof. D. Varju und Prof. K. Götz<br>Eberhard Karls University, Tübingen, Germany, |

**ACADEMIC CAREER**

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|-------------------|---|
| since 09/2009     | Adjunct Professor, Department of Brain and Cognitive Engineering, University, Seoul, Korea, Chairman of the Department Prof. Seong-Whan Lee |
| since 06/1996     | Honorary Professor, Faculty of Sciences, Biology Department, Eberhard Karls University, Tübingen, Germany                                   |
| since 07/1993     | Director, Department: Human Perception, Cognition and Action, Max Planck Institute for Biological Cybernetics, Tübingen, Germany            |
| 10/1992 - 06/1993 | Full Professor, Department of Cognitive and Linguistic Sciences, Brown University, Providence, USA  |
| 06/1992 - 08/1992 | Fesler-Lampert Visiting Professor of Artificial Intelligence and Cognitive Science, University of Minnesota, Minneapolis, USA               |
| 08/1991 - 09/1992 | Associate Professor, research field: "Bayesian models of seeing shapes and depth", Brown University, Providence, USA                        |
| 08/1988 - 07/1991 | Assistant Professor, research field: "Parallel optical flow computation on the connection machine", Brown University, Providence, USA       |

10/1985 - 07/1988	Research Scientist, research field: "Shape-from-X, cue integration, psychophysics", Massachusetts Institute of Technology, Cambridge, USA, Prof. T. Poggio
06/1980 - 12/1985	Research Scientist, research field: "Behavioural genetics, electrophysiology, neuropharmacology in the visual system of the fly", Max Planck Institute for Biological Cybernetics, Tübingen, Germany, Prof. K. G. Götz

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### SCHOLARSHIPS, AWARDS AND ADMINISTRATIVE FUNCTIONS

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since 2015	Member of the University Council of the University Tübingen, Germany
since 2013	Member of the Editorial Boards of Perception and i-Perception
since 2011	Member of the "Zentrum für Adaptive Robotik", University Würzburg, Germany
since 2009	Member of the Board "Forum Scientiarum", University Tübingen, Germany
since 2009	Member of the Advisory Board "Zentrum für Kognitionswissenschaften", University Bremen, Germany
2001 - 2009	Member of ENACTIVE – European Research Network for Enactive Interaction and Interfaces, Europe
2002 - 2008	Member of the Advisory Board COGNIRON - The Cognitive Robot Companion, Europe
2008	Member of COSY Advisory Board, Cognitive Systems for Cognitive Assistants, Europe
since 2007	Member of the Board of the Werner Reichardt Centre for Integrative Neuroscience (CIN), Tübingen, Germany
since 2007	Member of High-level advisory group for FET (Future and Emerging Technologies, Europe
2006- 2011	Member of „Heinz-Billing-Stiftungsrat“ der Max Planck Society, Europe
since 2006	Member of EU Cognition, European Research Network for Cognitive Computer Vision Systems, Europe
since 2006	Member of the Advisory Council of the Helmholtz Institute, Utrecht, Europe
since 2005	Member of the Board of Directors „Gesellschaft für wissenschaftliche Datenverarbeitung“, Göttingen (GWDG), Germany
1992	Fessler-Lampert Visiting Professor of Artificial Intelligence and Cognitive Science, University of Minnesota, Minneapolis, USA

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### MEMBERSHIPS IN PROFESSIONAL ASSOCIATIONS

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

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### PATENTS

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1. Bülthoff, H. H., Nusseck, H.-G.: Bildverarbeitungseinrichtung und entsprechendes Betriebsverfahren, US 8045052 B2
2. Bülthoff, H. H., Teufel, H. and Kerger, M.: Motion simulator and corresponding method, EP 2572344 B1; AU 2010353477 B2; CN 1080066935 B
3. Bülthoff, H. H., Robuffo Giordano, P.: Teleoperation method and human robot interface for remote control of a machine by a human operator, US 8634969 B2; CN 0980158119 B

**PUBLICATIONS****Full list of publications available at:**

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

**SELECTED PUBLICATIONS**

- Blake A & Bühlhoff HH (January-1990) Does the brain know the physics of specular reflection? *Nature* 343(6254) 165-168
- Bühlhoff HH, Little JJ & Poggio T (February-1989) A Parallel Algorithm for Real-Time Computation of Motion *Nature* 337(6207) 549-553
- Ernst MO, Banks MS & Bühlhoff HH (January-2000) Touch can change visual slant perception *Nature Neuroscience* 3(1) 69-73
- Bühlhoff I, Bühlhoff HH and Sinha P (July-1998) Top-down influences on stereoscopic depth-perception *Nature Neuroscience* 1(3) 254-257
- Bühlhoff HH & Götz KG (April-1979) Analogous motion illusion in man and fly *Nature* 278(5705) 636-638
- Fleming RW, Holtmann-Rice D & Bühlhoff HH (December-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
- De Winkel KN, Katliar M & Bühlhoff HH (May-2015) Forced Fusion in Multisensory Heading Estimation *PLoS ONE* 10(5) 1-20
- Kim J, Schultz J, Rohe T, Wallraven C, Lee S-W & Bühlhoff HH (April-2015) Abstract Representations of Associated Emotions in the Human Brain *Journal of Neuroscience* 35(14) 5655-5663
- Ernst MO & Bühlhoff HH (April-2004) Merging the Senses into a Robust Percept *Trends in Cognitive Sciences* 8(4)162-169