

CURRICULUM VITAE (2010)

Michael M. Richter

1938 Born on June 21st, 1938 in Berlin

Education and Degrees

- 1958 Graduation secondary school “Gymnasium Carolinum”, Osnabrück
- 1959-1965 Study of Mathematics in Münster and Freiburg
- 1965-1969 Research Assistant at the Mathematical Institute of the University of Freiburg
- 1968 Doctoral Dissertation (Dr. rer. nat.) in Mathematics at the University of Freiburg
- 1973 Habilitation in Mathematics, University of Tübingen

Professional Career

- 1969-1971 Assistant Professor for Mathematics at the University of Texas, Austin
- 1971-1973 Scientific Assistant at the Mathematical Institute of the University of Tübingen
- 1973-1974 Assistant Professor for Mathematics at the University of Texas, Austin
- 1973 Visiting Chair in Computer Science, University of Freiburg
- 1974 Lecturer for Mathematics, University of Tübingen
- 1975 April 1st: appointment professor at the RWTH Aachen, Dept. of Mathematics and Computer Science
- 1975 Offer of professorship at the FU Berlin, rejected
- 1978-1979 Winter term: Visiting Chair in Mathematical Logic at the University of Freiburg
- 1980 February: Guest researcher at the University of Texas, Austin
- 1981 January-May: Visiting professor at the University of Texas, Austin, Dept. of Computer Sciences and Mathematics
- 1981-1985 President of the German Association of Mathematical Logic and Basic Research in the Exact Sciences („Deutsche Gesellschaft für Mathematische Logik und Grundlagen der exakten Wissenschaften“)

- 1982 January-May: Visiting Professor at the University of Texas, Austin, Department of Mathematics
- 1984 August-December: Visiting professor at the University of Texas, Austin, Department of Mathematics
- 1985 Summer Term: Visiting professor of the Department of Computer Science at the University of Kaiserslautern
- 1986 February: Guest researcher at the McGill University, Montreal.
- April: Appointment as Professor for Practical Computer Science at the University of Kaiserslautern.
- April: Guest researcher at the research center of the ETH Zürich
- September: Managing board member of the research project „Sonderforschungsbereich 314: Artificial intelligence and knowledge-based systems“ at the Universities of Kaiserslautern, Karlsruhe, Saarbrücken.
- 1988 Offer of Professorship (Chair for Artificial Intelligence) at the University of Ulm (rejected)
- 1988/89 Negotiations for the foundation of the „German Center for Artificial Intelligence“ (DFKI), Kaiserslautern
- 1989 - 1993 Scientific director of the „German Center for Artificial Intelligence“ (DFKI), Kaiserslautern
- 1989 Head of the Research Center for Mathematical Logic of the „Heidelberger Akademie der Wissenschaften“
- 1991 March: Guest researcher at the Stefan Banach International Mathematical Center, Warschau
- 1991 Foundation of the tecInno company
- 1992 January: Guest researcher at the IBM Research Center, Yorktown Heights
- 1993 - 1995 Research Director of the Dept. for Intelligent Engineering Systems at the “German Center for Artificial Intelligence“, Kaiserslautern
- 1994-2000 Lecturer at the University of St.-Gallen (Decision Support)
- 1995 Managing board member of the research project „Sonderforschungsbereich 501“ on Software Engineering, Kaiserslautern.
- 1997 Guest researcher at the International Computer Science Institute, University of California at Berkeley.

- 1997 Innovation Prize of the Rheinland-Pfalz with tecInno company
- 1997-2001 Chairman of the Department of Computer Science at the University of Kaiserslautern
- 1998 September: Visiting Universidade de Santa Catarina, Florianópolis, Brazil (Computer Science)
- 1999 August: Visiting University of Calgary, Department of Computer Science, Canada
- October: Visiting Universidade de Santa Catarina, Florianópolis, Brazil
- 2000 August: Visiting University of Calgary, Department of Computer Science, Canada
- 2001 March: Visiting Universidade de Santa Catarina, Florianópolis, Brazil
- 2002 August: Visiting University of Calgary, Department of Computer Science, Canada
- 2003 March/April: Visiting Universidade de Santa Catarina, Florianópolis, Brazil
- 2003 August: Visiting Professor at the University of Calgary, Department of Computer Science, Canada
- 2003 September: Visiting Researcher at the NRC Fredericton, New Brunswick, Canada
- October 1st: Retirement at the University of Kaiserslautern
- 2004 January to April: Visiting Professor at the University of Calgary, Department of Computer Science, Canada
September – October: Visiting Professor at the University of Calgary, Department of Computer Science, Canada
October-November Research Visit Universidade de Santa Catarina, Florianópolis, Brazil
- 2005 July-August Visiting Professor at the University of Calgary, Department of Computer Science, Canada
- 2006 Adjunct Professor, Univ. of Calgary ; Visit at Universidad die Costa Rica, Summer: Univ.of Calgary
- 2007 January-May: University of Calgary
- 2007-2008 Support of Universities in Costa Rica for an interdisciplinary PhD System.
- 2008 May-August University of Calgary

2007-2009 Project: Speech Recognition in Ambient Intelligence, Kaiserslautern.
 DFG (German Science Foundation) Project “Weltbilder”, Germany.
 Heads: M.M. Richter, G.Lausen. Extended 2010.

Recent Conferences

Co- Chair of Conferences and Workshops:

Co-Chair International Conference on Case-Based Reasoning (ICCBR 2007), Belfast

Co-Chair Workshop on Uncertainty and Fuzziness in CBR at the International

Conference on Case-Based Reasoning (ICCBR 2007), Belfast

Co-Chair Workshop on Uncertainty, Similarity and Knowledge Discovery at the European Conference on Case-Based Reasoning (ECCBR 2008), Trier 2008.

PAKM2010. The Eighth Conference on Practical Aspects of Knowledge Management, Philadelphia November 2010.

Member of Program Committees:

Industrial Conference on Data Mining (ICDM), Leipzig, July 2007 International

Conference on Adaptive Business Systems ICABS07/CODS07/AOSDM07, Chengdu, China, 22-24 July 2007 .

Workshop „Emotional Computing“ KI-Konferenz Bremen 2007

Workshop „Emotional Computing“ . KI-Konferenz Kaiserslautern 2008.

International Conference on Adaptive Business, Glasgow, UK, 22-24 July 2008

European Conference on Case-Based Reasoning (ECCBR 2008), Trier.

WORKSHOP on Technologies for Knowledge Management. 7th International Conference on Practical Aspects of Knowledge Management, Nov. 21st - 23rd, 2008, Keio University, Japan

6th International Conference on Machine Learning and Data Mining in Pattern Recognition - MLDM 2009, Leipzig/Germany.

Workshop „Emotional Computing“ KI-Konferenz Germany 2009.

The Eighth International Conference on Case-Based Reasoning (ICCBR-09) Seattle, Washington, July 2009.

Workshop on Uncertainty, Similarity and Knowledge Discovery at the International Conference on Case-Based Reasoning (ICCBR 2009), Seattle, July 2009.

3rd International Conference on Adaptive Business and Information Systems (ABIS 2009), Leipzig, Germany, 23-25 March 2009.

Exact 2009. IJCAI 2009 Workshop on Explanation Aware Computing. Pasadena 2009.

Workshop „Emotional Computing“ KI-Konferenz Germany 2010.

BTES2010. The 1st International Conference on Business Technology and Enterprise Systems. Chongqing, China, 12-14 July 2010

ExaCt 2010. Fifth International Workshop on Explanation-aware Computing. Lisbon, Portugal, August 2010.

ICCBR 2010. International Conference on Case-based Reasoning, Alessandria, Italy, July 2010.

Recent Publications

Books, Journals:

A. v. Wangenheim, R. Bertoldi, D. Abdala and M.M. Richter: Color image segmentation guided by a color gradient network. [Pattern Recognition Letters](#) 28(13): 1795-1803 (2007). doi:10.1016/j.patrec.2007.05.009.

Michael M. Richter: Similarity. In: Case-Based Reasoning for Signals and Imaging, ed. Petra Perner, Springer Verlag 2007, pp.25-90.

Thomas R. Roth-Berghofer, Michael M. Richter: On Explanation. KI 2008.KI 2/08, pp. 5-7.

Michael M. Richter: The Search for Knowledge, Contexts, and Case-Based Reasoning. Engineering Applications for Artificial Intelligence 22 (2009), pp.3-9.

Aldo von Wangenheim, Rafael Floriani Bertoldi, Daniel Duarte Abdala, Michael M. Richter, Lutz Priese, Frank Schmitt: Two-Step Segmentation of Natural Color Scenes using Hierarchical Region-Growing and a Color-Gradient Network. Journal of the Brazilian Computer Society 2009.

Michael M. Richter, Thomas R. Roth-Berghofer: A Unified View on Explanation Aware Computing. Submitted.

Michael M. Richter: On the Foundations of Equality and Similarity. In: Logik als Grundlage von Wissen(schaft). (ed. W.Neuser, W.Lenski), Winter, Heidelberg 2010.

Proceedings

Richter, M.M: *Foundations of Similarity and Utility*. Proc. Flairs 07, AAAI Press 2007.

Richter, M.M: *Case Based Reasoning and the Search for Knowledge*. In: Advances in Data Mining: Theoretical Aspects and Applications (ed. Petra Perner), Springer LNAI 4597, 2007, pp. 2-14.

Eyke Hüllermeier, Michael M., Richter, Rosina Weber: Uncertainty and Fuzziness in Case-Based Reasoning. Proc. Workshop on Uncertainty and CBR at the ICCBR2007.

Volker Michel, Michael M. Richter, Bernd Klein: Spracherkennung als Mittel zur Unterstützung von älteren oder behinderten Menschen zur Ausführung von Aktionen auf der Basis von Wavelets. Jahresbericht 2008 Stiftung Innovation Rheinland-Pfalz.

Jingzhou Li, Brenan Mackas, Michael M. Richter and Guenther Ruhe: Cases, Predictions, and Accuracy Learning and its Application to Effort Estimation. Proc. ECCBR 2008, Trier.

Craig MacDonald, Rosina Weber, Michael Richter: Case Base Properties: A First Step. Proc. Workshop on Uncertainty, Similarity and Knowledge Discovery, ECCBR 2008, Trier.

Eyke Hüllermeier, Rosina Weber, Michael M. Richter: Introduction to the special section "Case-Based Reasoning", Fuzzy Sets and Systems 160 (2009) , p.212-213.

S. M. Sohan, Michael M. Richter and Frank Maurer, Auto-Tagging Emails with User Stories Using Project Context, Proc. of 11th International Conference on Agile Processes and eXtreme Programming (XP 2010), Trondheim, Norway, 2010.

Elham Paikari, Michael M. Richter, Guenther Ruhe, "A Comparative Study of Attribute Weighting Techniques for Software Defect Prediction Using Case-based Reasoning", Proceedings 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE'2010), July 2010. Best paper award.

Vladimir Sarpe, Afshin Esmaeili, Iman Yazdanbod, Thane Kubik, Michael Richter, Christian Jacob: Parametric Evolution of a Bacterial Signalling System Formalized by Membrane Computing. Proc. **IEEE CEC (Barcelona) 2010**.

Recent Talks

Similarity and Utility. Calgary, March 2007.

Foundations of Similarity and Utility. Invited talk Flairs, May 2007 (Key West).

From Knowledge Based Systems to Knowledge Management. Philadelphia, May 2007.

Gibt es eine allgemeine Bedeutung des Ähnlichkeitsbegriffes? Kolloquium: Logik als Grundlage von Wissen(schaft). Kaiserslautern, June 2007.

Die Suche nach mathematischen Wissen und das Werk von G.H. Müller. Gedenkkolloquium G.H. Müller, Heidelberg June 2007.

The Search for Knowledge, Contexts, and Case-Based Reasoning. Invited talk, International Congress on Data Mining, Leipzig, Juli 2007.

Philosophische Aspekte der Künstlichen Intelligenz. Kolloquium Philosophie der Mathematik, December 2007.

Wicked Problems, Dialogs, Explanations and Experiences. San Jose, Costa Rica March 2008.

Present and Future Aspects of Artificial Intelligence. San Jose, Costa Rica March 2008.

Socio-technical Processes and Wicked Problems. Trondheim, May 2008.

Cases, Predictions, and Accuracy Learning and its Application to Effort Estimation. European Conference on Case-Based Reasoning (ECCBR 2008), Trier, September 2008.

Case-Based Properties: A First Step. Workshop on Uncertainty, Similarity and Knowledge Discovery at the European Conference on Case-Based Reasoning (ECCBR 2008), Trier, September 2008.

Similarity and the search for information. Akademie der Wissenschaften Göttingen 2008.

Logic in Games. Xanten, Juli 2009.

Foundations of Similarity. University of Saskatchewan, Regina, November 2009.

Views the Web has Changed: On Distances and Time, on Human Knowledge, and on Responsibility. Workshop "Plastic Human Boundaries". Heidelberg January 2010.

Students

Masters, Diploma: 295

PhD: 64

PhD Committees: 71

