

Henning Müller: Curriculum Vitae

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Work addresses

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Education

- 2002-2008 Habilitation for the title of privat-docent at the medical faculty of the University of Geneva, submitted in May 2008, official lecture held in November 2008
- 2008 Training cours on Agile software development models at ValTech, Paris, France
- 1998-2002 PhD Studies in Image Processing, University of Geneva, Switzerland on User Interaction and Performance evaluation in content-based visual information retrieval; thesis nominated for the Latsis price of the best thesis of the University of Geneva
- 2001 Research exchange with Monash University, Melbourne, Australia with a scholarship of the Swiss National Science Fund (FNRS (83R-064270))
- 1997-1998 Internship at the Vehicle Systems Technology Centre (VSTC) of Daimler Benz Research and Technology North America (RTNA) in Portland, OR, USA with a scholarship of the Carl Duisberg Society in a program of the German Ministry of the Exterior
- 1994-1997 Diploma Studies in Medical Informatics, Technical School Heilbronn and University of Heidelberg, Germany
- 1992-1994 Pre-diploma Studies in Medical Informatics, Technical School Heilbronn and University of Heidelberg, Germany
- 1982-1991 High School, Gymnasium Herderschule Rendsburg, Germany
- 1978-1982 Elementary School, Theodor-Storm-Schule Hohn, Germany

Working Experience

- since 2008 Assistant professor position at the University of Geneva, medical faculty, at 20% (suppléant d'enseignement et de recherche)
- since 2007 Full professor at the University of Applied Sciences at Sierre, Switzerland, in the business informatics section on business information systems (at 80%)
- 2002-2008 Postdoctoral research and teaching position at the service for medical informatics at the University Hospitals of Geneva and the University of Geneva (initiator and leader of the *medGIFT* project) with Prof. Geissbuhler, (reduction of the activity to 20% since November 2007)
- 2005 Research visit at OHSU in Portland, Oregon with Prof. Hersh on the Evaluation of medical image retrieval systems (ImageCLEF)
- 1998-2002 Research and teaching assistant at the University of Geneva with Prof. Pun, development of a content-based image retrieval system (*GIFT*) in a research project (*Viper*), teaching of computer science courses for adults and life science students
- 2001 Research exchange with Monash University in Melbourne, Australia on learning from user behavior for content-based image retrieval with Dr. Squire
- 1997-1998 Internship at the Daimler Benz Research and Technology North America in Portland, Oregon, Development of CAN communication routines for trucks in a project for a radar based cruise control
- 1996-1997 Research Assistant at the German Cancer Research Center (DKFZ) in Heidelberg, Germany, planning and development of DICOM routines for the teleradiology system CHILI on various platforms (Prof. Meinzer and Dr. Engelmann)
- 1995-1996 Research Assistant with Prof. Dickhaus and Prof. Khadra at the Technical School in Heilbronn, Analysis of ECG-signals of heart transplanted patients with Wavelets and chaos theoretical approaches

- 1994 Study thesis for Prof. Peter at the Technical School Heilbronn, development of a multimedia demonstration of the Technical School Heilbronn for a congress, developed on Sun Solaris with the tool Sybase Gain Momentum
- 1991-1992 Military service at the German air force, Airport Hohn. Work as a dispatcher in the Aeronautical Information Service (AIS)
- 1990-1998 Programmer for the *GSbG* in Kiel and Ahrensburg and for SET software development; planning, structuring, development, programming and maintenance of software, hotline services, user training; development of user guides and graphical evaluations; programming was performed in Pascal and Excel on IBM computers
- 1990-1992 *Geriatric*: research project about the health and treatment of older people for the federal state of Schleswig-Holstein
- 1992-1994 *KraBe*: project for medical insurance companies on the comparison of the economics (cost structures per diagnosis) of different hospitals in Germany
- 1992-1995 *Abins*: hospital information and billing system, test project of the German Ministry of Health for diagnosis related groups and billing with fixed prizes
- 1993-1998 *AbinsNeu*: hospital information and billing system integrating Germany's billing laws for billing based on telecommunication
- 1990-1992 Planning, development, and marketing of a school management program
- 1990-1991 Development of a program for schools for the automatic evaluation of track and field games using punch cards and an automatic card reader
- 1987-1991 Programmer for Kronas Lernsysteme, Meldorf Germany Conception and programming of educational software and software for signal processing on a C64 in Assembler and Basic

Language Skills

| | |
|---------|--------------------------------|
| German | mother tongue |
| English | fluent in speaking and writing |
| French | fluent in speaking and writing |
| Spanish | notions |
| Latin | school knowledge of four years |

Membership in scientific organizations

| | | |
|-------|------------|--|
| 2009- | MICCAI | Medical Image Computing and Computer Assisted Intervention |
| 2005- | ACM SIGIR | Special Interest group in information retrieval |
| 2003- | IEEE | Institute for electrical and electronical engineers |
| 2003- | EFMI-MIP | European federation for medical informatics, WG medical image processing |
| 2003- | GMDS AG BV | Working group on medical imaging in the GMDS |
| 2003- | SGMI | Schweizer Gesellschaft für Medizinische Informatik |
| 2000- | IAPR | International Association for Pattern Recognition |
| 2000- | ACM SIGMOD | Special Interest Group on the Management of Data |
| 1995- | GI | Gesellschaft für Informatik |
| 1995- | GMDS | Gesellschaft für medizinische Informatik, Biometrie und Epidemiologie |

Scientific committees

Organizer of a workshop on image retrieval evaluation at the ICPR 2010 conference, Istanbul, Turkey

Scientific Committee IRFC 2010 Vienna, Austria

Program Committee Internet 2010, Valencia, Spain

Program Committee AFIN 2010, Venice, Italy

Local Organization Committee member of CARS 2010, Geneva, Switzerland

Scientific Program Committee member BVM 2010, Aachen, Germany

Program Committee of CIGM 2010, Innsbruck, Austria

Technical Program Committee for GPC 2010, Hualien, China

Scientific Committee SAC 2010, Crans Montana, Switzerland

Scientific Committee of IR Workshop 2009, Darmstadt, Germany

Scientific Program Committee ACCV 2009, Xian, China

Organizer of a Japan/Switzerland seminar on Grid networks in the health sector 2009, Grimentz, Switzerland,

Co-organizer of a workshop on medical content-based retrieval at MICCAI 2009, London, UK

Steering Committee of CLEF 2009, Corfu, Greece

Organizer of ImageCLEF 2009, Corfu, Greece

Organizer of the ImageCLEF/theseus workshop on image retrieval evaluation, Corfu, Greece

Scientific Program committee of the eHealth Conference MCCSIS 2009, Algarve, Portugal

Scientific Committee SIGIR 2009, Boston, USA

Scientific Committee of HealthGrid 2009, Berlin, Germany

Steering Committee member CLEF 2009, Corfu, Greece

Scientific Committee of ADVComp 2009, Malta

Member of the K3D expert group of 3D in biomedicine

Scientific Committee of the Challenges for Grids in Healthcare workshop at ccGrid, Shanghai, China, 2009

Program Committee of Internet 2009, Cap Esterel, France
Program Committee of AFIN 2009, Athens, Greece
Workshop chairman of GPC 2009, Geneva, Switzerland
Program Committee of GPC 2009, Geneva, Switzerland
Program Committee of ICTAI 2008, Dayton, OH, USA
Program Committee of the Workshop on Information Access to Cultural Heritage at ECDL, Aarhus, Denmark, 2008
Scientific Committee of HealthGrid 2008, Chicago, IL, USA
Scientific Committee of IR Workshop 2008, Würzburg, Germany
Steering Committee member of CLEF 2008, Aarhus, Denmark
Organizer of ImageCLEF 2008, Aarhus, Denmark
Organizing chair of the Swiss conference on medical informatics 2008, Sierre, Switzerland
Program Committee SIGIR 2008, Singapore, 2008
Scientific Program Committee LREC 2008, Marrakesh, Morocco, 2008
Program committee of the workshop on novel methodologies for evaluation in information retrieval, Glasgow, Scotland, 2008
Scientific program committee member ADVCOMP, Valencia, Spain, 2008
Program Committee ICPR 2008, Tampa, FL, USA
Section editor of the IMIA Yearbook of Medical Informatics 2008
IAPR TC5 Steering Committee Member since 2007
Program Committee ADVComp 2007, Papeete, French Polynesia
Program Committee of the Workshop on Advanced Searching On Voice, Video, and Speech Contents 2007, Papeete, French Polynesia
Program Committee of the SIGIR Workshop on Multimedia Retrieval 2007, Amsterdam, The Netherlands
Steering Committee CLEF 2007, Budapest, Hungary
Organizer of ImageCLEF 2007, Budapest, Hungary
Organizer of the MUSCLE/CLEF workshop on image and video retrieval evaluation 2007, Budapest, Hungary
Program Committee SIGIR 2007, Amsterdam, the Netherlands
Organizing chair of healthGrid 2007, Geneva, Switzerland
Program Committee and Publication Chair MIMI 2007 (Medical Imaging and Informatics), Beijing, China
Steering Committee of CLEF 2006, Alicante, Spain
Organizer of ImageCLEF 2006, Alicante, Spain
Organizer of the MUSCLE/CLEF workshop on image and video retrieval evaluation 2006, Alicante, Spain
Program Committee ICICT 2006, Giza, Egypt
Program Committee of SIGIR 2006, Seattle, WA, USA
Member of the local organizing committee of MIE 2005 (Medical Informatics Europe), Geneva, Switzerland
Member of the program committee of MIT 2005 (Medical Imaging and Telemedicine), WuYi Mountain, China
Steering Committee member CLEF 2005, Vienna, Austria
Organizer of ImageCLEF 2005, Vienna, Austria
Organizer of the MUSCLE/CLEF workshop on image and video retrieval evaluation 2005, Vienna, Austria
Special session co-organizer on medical image retrieval at ACM Multimedia 2005, Singapore (Brave new topics together with Qi Tian and H. K. Huang)
Program committee member of the Workshop on Similarity Measures for Content-Based Multimedia Retrieval at the 8th International Conference on Knowledge-Based Intelligent Information and Engineering Systems (KES2004), Wellington, New Zealand
Steering committee member CLEF 2004 (Cross Language Evaluation Forum), Bath, England
Organizer of ImageCLEF 2004, a benchmarking event in image retrieval, Bath, England
Program Committee member of the SPIE Conference on Electronic Imaging 2002, San Jose, CA, USA.

Editorial boards

Editorial Board member of the Journal Recent Patents in Medical Imaging since 2009
Editorial Board member of the Journal of Healthcare Engineering since 2009
Editorial Board member of the Journal Future Internet, 2009-2011
Editorial Board member of Methods of Information in Medicine, 2009-2012
Editorial Board member of the open medical informatics journal since 2008
Associate Editor of the Journal Computerized Medical Imaging and Graphics since 2008

Scientific activities

Invited tutorial presenter for the TrebleCLEF summer school 2009, Pisa, Italy
Invited speaker at the Swiss database days (DBTA) 2008, Basel, Switzerland
Invited presenter of a tutorial on medical image retrieval at the autumn school 2008, Fribourg, Switzerland
Tutorial presenter on image retrieval at ICPR 2008, Tampa, FL, USA
Invited Speaker at AITTH 2008, Minsk, Belarus
Invited Speaker at ICT4health 2008, Manila, The Philippines
Panel invitee at SPIE Medical Imaging 2008, San Diego, USA
Workshop moderator at medinfo 2007 on trusted medical information on the Internet, Brisbane Australia

Session chair at medinfo 2007, Brisbane, Australia
 Panel invitee at ISHIMR 2007, Sheffield, England
 Session chairman at HealthGrid 2007, Geneva, Switzerland
 Session moderator PACS and interactive viewing stations at ECR 2007, Vienna, Austria
 Invited speaker at the MedCAST workshop 2006, Darmstadt, Germany
 Session Chairman at MIE 2006, Maastricht, The Netherlands
 Tutorial presenter on medical image retrieval at MIE 2006, Maastricht, The Netherlands
 Architecture Board Member of the EU project AneurIST 2006-2007
 Board member of the EU project KnowARC, 2006-2009
 Member of a panel for medical informatics education, Bath University, England, 2006
 Invited Speaker at MIT 2005, WuYi Mountain, China
 Session chairman at MIT 2005, WuYi Mountain, China
 Tutorial presenter on medical image retrieval at MIE 2005, Geneva, Switzerland
 Workshop organizer at MIE 2005, Geneva, Switzerland
 Workshop organizer of the EFMI WG medical image processing at MIE 2005, Geneva, Switzerland
 Session chairman at gmds 2004, Innsbruck, Austria
 Tutorial presenter on medical image retrieval at medinfo 2004, San Francisco, CA, USA
 Session chairman at the 2001 workshop on Multimedia Information Retrieval at the ACM Multimedia Conference, Ottawa, Canada, 2001.
 Organization member of the Benchathlon, initiative for benchmarking image retrieval applications (2001-2004)

Reviewer

- o National Science Foundation (NSF) Fellowship program
- o Netherlands Organization for scientific research
- o Netherlands Organization for health research and development

- o ITAB 2009
- o ACCV 2009
- o Future Internet 2009
- o AFIN 2009
- o HealthGrid Workshop at ccGrid 2009
- o GPC 2009
- o Workshop cultural heritage retrieval at ECDL 2008
- o ICPR 2008
- o WIR 2008, 2009
- o LREC 2008
- o SSIM 2008
- o ADV COMP 2007, 2008, 2009
- o MIMI 2007
- o HealthGrid 2007, 2008, 2009
- o PARA 2006
- o SIGIR 2006, 2007, 2008, 2009
- o MIE 2006, 2009
- o ICICT 2006
- o MIT 2005
- o CLEF 2004, 2005, 2006, 2007, 2008, 2009
- o MedInfo 2004, 2007
- o GMDS 2004
- o Workshop on Similarity Measures for Content-Based Multimedia Retrieval at the 8th International Conference on Knowledge-Based Intelligent Information and Engineering Systems (KES2004)
- o ACM Multimedia Conference 2002

- o Data and Knowledge Engineering
- o Future Generation Computer Systems
- o Information Processing and Management
- o Computational Intelligence of Medical Imaging (book)
- o Pattern Recognition
- o Computer Vision and Image Understanding
- o Yearbook on medical informatics 2007, 2008
- o Database and Knowledge Engineering
- o Open Medical Informatics Journal
- o Optics Communications
- o International Journal of Pattern Recognition and Artificial Intelligence
- o Pattern Analysis and Applications
- o Journal of Digital Imaging

- o Machine Vision and Applications
- o EURASIP Journal of Image and Video Processing
- o Expert Opinion in Drug Discovery
- o Computer Methods and Programs in Biomedicine
- o International Journal on Dentomaxillofacial Radiology
- o Journal of Artificial Intelligence in Medicine
- o Software Practice and Experience
- o BiomedCentral Cytojournal
- o Biomedcentral, Biomedical Informatics and Decision Making
- o Biomedcentral, Medical Imaging
- o BMC Bioinformatics
- o Open Environmental and Biological Monitoring Journal
- o Computerized Medical Imaging and Graphics
- o Information Retrieval
- o ACM Multimedia Systems Journal
- o IEEE Transactions on Medical Imaging
- o IEEE Transactions on Mobile Computing
- o IEEE Transactions on Information Technology in Biomedicine
- o International Journal of Images and Graphics
- o Journal of Visual Languages and Computing
- o Parallel Processing Letters
- o European Journal of Radiology
- o International Journal of Medical Informatics
- o Methods of Information in Medicine
- o Medical Engineering and Physics
- o Journal of Zhejiang University
- o Iranian Journal of Electrical and Computer Engineering

University activities

Bachelor thesis supervisor for Gilles Rudaz on 3D information retrieval (2009)

Work with Bruno Alves and David Godel as research assistants (since 2009)

Work with Ivan Eggel as research assistant (since 2009)

Bachelor thesis supervisor for Ivan Eggel in 2008 on retrieval of complex documents

Bachelor thesis supervisor for Frédéric Gaillard in 2008-2009 on an interface for visual retrieval including 3D data

Internship supervisor for Alejandro Vargas on the creation of a database of interstitial lung disease, since 2008

Internship supervisor for Herizo Andriambololoniaina on the creation of a database of interstitial lung disease, 2008

Work on projects with scientific assistants Alain Duc and Ludovic Martone, 2008

Supervisor of postdoctoral senior researcher in the KnowARC project 2008 (Marko Niinimäki)

External PhD expert for Middlesex University, London, UK, 2008 (Jade Qian)

Diploma Supervisor for Nicolas Coutaz at the HES Sierre on coupling several proprietary systems using SOA for integration into a BPM system 2007

Diploma Supervisor for Matthieu Giotta at the HES Sierre on Data Mining in a medical data warehouse, 2007

PhD supervisor for Xin Zhou on using grid networks for medical image retrieval (since 2006)

PhD supervisor for Mikko Pitkänen on the use of grid technologies for information retrieval (2006-2007)

PhD supervisor for Jimison Iavindrasana on access to medical records and multimodal data mining (since 2006)

PhD supervisor for Adrien Depeursinge lung CT as diagnostic aid (since 2006)

Internship supervisor for Asmaa Hidki on the creation of a medical database of interstitial lung disease cases (2006-2007)

Internship supervisor for Phuong Ang Do Huang on image retrieval in a database of fractures (2006)

Internship supervisor for Tobias Gass on the use of tf/idf weighting for image classification (2006)

Tutor in the problem-based learning activities of the medical faculty, university of Geneva (2004-2007)

Representative of the medical faculty in the commission on computer services for students at Geneva University (2004-2007)

Member of the informatics commission of the medical faculty (since 2003)

Responsible for 12 student assistants maintaining the computer system and a help desk at the library of the faculty of medicine (2003-2007)

External expert for the diploma defense of Sébastien Pansier (EIG, 2005)

Supervision of a medical intern on the use of open source software in the medical domain (Ivan Topolski, 2005)

Supervision of an intern on medical image analysis (Samuel Marquis 2005)

Supervision of a diploma student on medical image analysis (Samuel Marquis, 2004-2005)

Supervision of a student doing his civil service on medical image processing (Joris Heuberger, 2004)

Jury member of four diploma theses at the EPFL 2002 (Prof. Michael Unser, 2002)

Jury member in a diploma thesis at the University of Geneva (Tatiana Louchnikova, 2001)

Supervisor of a license project at the University of Geneva (Cornelia Luoni, 2000)

Co-Supervisor of a diploma project at the University of Geneva (Jilali Raki, 1999)

Teaching

- 2009 Course on Agile software development at the University of Fribourg, Switzerland
- Since 2008 Master course in Research methodology in a Master in Business Administration program of the HES SO
- Since 2008 Course on Agile and iterative software development methods and software factories, HES SO Sierre
- Since 2007 Course on Information system management and project management for creating institution-wide information systems, HES SO Sierre
- 2007 Course on Master level on Picture Archiving and Communication Systems at INSA Lyon, France together with David Bandon
- 2004-2007 Tutor in problem-based learning in the introduction group for medical students (Subjects: SARS, West Nile virus, the flu, viruses and their working mechanisms and vaccinations, privacy protection, information search)
- 2002-2007 Introduction to medical information search, exercises for medical students
- 2002-2007 Organization of various courses for the certificate in medical informatics of the continuing education of the University of Geneva
- Communication protocols
 - DICOM, HL7
 - Internet
 - Security of networks
 - XML
- 2000 Modeling hospital information systems, 3LGM
- 2000 Introduction to the Internet and computer science - Part of the continuing education program of the University of Geneva
- 1999-2002 Creation of an online course on medical image processing for medical students within the project "computers for health" (C4H) of the Swiss Virtual Campus
- 1998-2002 Introduction to computer science and programming for life science students (biology, pharmacy)

Grants

- 2009-2012 Funding for the Chorus FP7 EU project (1'100'000 in total with 97'000 for the University of Applied Sciences in Sierre)
- 2009 Funding for relevance judgements of the TrebleCLEF project (5000 Euros)
- 2009 Funding of the Swiss National Science Foundation to organize a Switzerland/Japan seminar on Grid networks in the medical domain (12'300 CHF)
- 2009 Funding of the Swiss National Science Foundation to fund the Grid and Pervasive Computing conference (3'500 CHF)
- 2009 Funding for a pre-CLEF workshop on visual information retrieval organization (Theseus project, ~3'000 Euros)
- 2008-2009 Grant of Switch together with Bastien Chopard and Nabil Abdenadher on Grid networks, EZ-Grid (60'000 CHF University of Geneva, 40'000 CHF HES SO)
- 2008 Grant of the TrebleCLEF project for a tutorial at ICPR, Tampa, FL, USA (2'500 Euros)
- 2008 Grant of the HES SO for the organization of the SSIM conference (15'000 CHF)
- 2008 Industrial sponsors for the organization of the SSIM conference (7'000 CHF)
- 2008 Grant of the Quaero project for a workshop on multimedia retrieval evaluation (2'000 Euro)
- 2008-2009 Grant for a Call project of the RCSO of the University of Applied Sciences Western Switzerland for the project MediCoordination as co-requester with Michael Schumacher (560'000 CHF, 200'000 CHF for HES SO Sierre)
- 2008-2009 Grant from the RCSO of the Universities of Applied Sciences, Switzerland, on the benchmarking of medical visual information retrieval systems, BeMeVIS (241'500 CHF)
- 2008-2009 Grant of the Swiss National Science Foundation for Talisman 2, a project on lung CT analysis (100'480 CHF)
- 2007 Grant of the Administrative Commission of the University of Geneva to finance the healthGrid 2007 conference (8'000 CHF)
- 2007 Funding for a workshop on image and video retrieval evaluation by the FP6 NoE MUSCLE (2'000 Euro)
- 2006-2008 ICT4ASIA project ONCOMedia of the French government for cooperation within Asia (Funding for exchanges and travel, 80'000 Euro), start in November 2006
- 2006 Funding for a workshop on image and video retrieval evaluation by the FP6 NoE MUSCLE (2'000 Euro)
- 2006 Internal University grant for computing infrastructure, Informatics Commission (11'800 CHF)
- 2006-2009 EU project KnowARC on the creation of an easy grid middleware and its use for image retrieval (2'900'000 Euro with 248'000 Euro for UNIGE), start in June 2006
- 2006-2009 EU project Multimatch on the multimodal retrieval of cultural heritage objects (3'100'000 Euro with 230'500 Euro for UNIGE), start in Mai 2006

- 2006 Co-request of a PRD project (internal hospital grant) for the creation of a digital lung CT library with Pierre-Alexandre Poletti (Budget de recherche et de développement des HUG 05-9-II) (49'000 CHF)
- 2006-2007 Research project lung retrieval by the Swiss National Science Foundation (SNF) number 205321-109304-1 (86'600 CHF)
- 2005 Funding for a workshop on image and video retrieval evaluation by the FP6 NoE MUSCLE (2'000 Euro)
- 2004-2007 Co-request of a grant by William Hersh on cooperation between EU FP6 projects (SemanticMining) and NSF projects (GenomicsTREC) (\$100'000)
- 2003-2005 Ragtime - Rhone-Alpes project on the use of grid technologies for medical applications (no funding for Swiss partners possible any more)
- 2001 Grant of the Swiss National Fund (FNRS) for a research exchange with Monash University, Melbourne, Australia (3'500 CHF)
- 1997 Grant of the Carl Duisberg Society in the Deutsch-Amerikanisches Praktikantenprogramm for an internship at the DaimlerBenz Research and Technology in Portland, OR, USA. (8'000 DM)