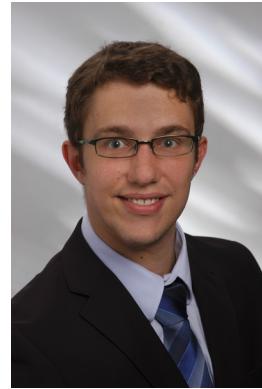# Dr. Carsten Henneges

Background

- Oct, 2001 - Oct, 2006: Studies of Bioinformatics at the University of Tübingen
- since November 2006: Research assistant at the center for bioinformatics (ZBIT), University of Tübingen

Research Interests

- machine learning
- ranking algorithms
- feature selection
- graph algorithms
- graphical visualization
- statistical data analysis

Current Projects

- proteomics data analysis
- metabolomics data analysis

Publications

- *Predicting DNA-Binding Specificities of Eukaryotic Transcription Factors*
  A. Schröder, J. Eichner, J. Supper, J. Eichner, D. Wanke, C. Henneges, A. Zell, Plos ONE, 2010, [PDF]
- *A factorization method for the classification of infrared spectra*
  C. Henneges, P. Laskov, E. Darmawan, J. Backhaus, B. Kammerer, A. Zell, BMC Bioinformatics, 2010, [PDF]
- *Graphlet data mining of energetical interaction patterns in protein 3D structures*
  C. Henneges, M. Röttig, O. Kohlbacher, A. Zell, ICNC, 2010, [PDF]
- *Probabilistic Modeling of Conformational Space for 3D Machine Learning Approaches*
  A. Jahn, G. Hinselmann, N. Fechner, C. Henneges, A. Zell, Molecular Informatics, 2010, [PDF]
- *Optimal de novo design of MRM experiments for rapid assay development in targeted proteomics*
  A. Bertsch, S. Jung, A. Zerck, N. Pfeifer, S. Nahnsen, C. Henneges, A. Nordheim, O. Kohlbacher, Journal of Proteome Research, 2010, [PDF]
- *Ranking Methods for the Prediction of Frequent Top Scoring Peptides from Proteomics Data*
  C. Henneges, G. Hinselmann, S. Jung, J. Madlung, W. Schütz, A. Nordheim, A. Zell, Journal of Proteomics and Bioinformatics, 2009,[PDF]
- *Prediction of breast cancer by profiling of urinary RNA metabolites using SVM-based feature selection*
  C. Henneges, D.Bullinger, R. Fux, N. Friese, H. Seeger, H. Neubauer, S. Laufer, C.H. Gleiter, M. Schwab, A. Zell, B. Kammerer, BMC Cancer, 2009, [PDF]
- *An Artificial T cell Immune System for predicting MHC-II binding peptides*
  C. Henneges, S. Huster, A.Zell, IEEE SSCI, 2009
- *Modelling Tsunami Vulnerability: The Development of a Tsunami Inundation Model with Machine Learning Tools*
  T. Häring, M. de Paly, C. Henneges, V. Hochschild, Digital Earth Summit on Geoinformatics, 2008
- *Bioinformatical evaluation of modified nucleosides as biomedical markers in diagnosis of*

breast cancer
D. Bullinger, H. Fröhlich, F. Klaus, H. Neubauer, A. Frickenschmidt, C. Henneges, A. Zell, S. Laufer, C. Gleiter, H. Liebich, B. Kammerer, Analytica Chimica Acta, 2008, [PDF]

Posters

- *A machine learning approach for ranking of proteotypic peptides for MS*
  C. Henneges, G.Hinselmann, J. Madlung, S. Jung, T. Lamkemeyer, A. Nordheim, A.Zell, Hupo 2008

Data and Software

- GroupRank - a model-based feature selection method
- JaRa - The Java Rankers
- The Metabolomics Benchmark Dataset
- BrierScoreMF

Thesis

- *Algorithmen zur Graphmustersuche für das Netzwerkanalysetool BiNA*
  Universität Tübingen, 2006

Address, Phone, Fax, E-mail

Eberhard-Karls-Universität Tübingen
Wilhelm-Schickard-Institut für Informatik
Lehrstuhl Kognitive Systeme
Sand 1
D - 72076 Tübingen

Germany

Tel: +49-7071-29-77 17 5
Fax: +49-7071-29-50 91
eMail: carsten henneges (at) gmx de