

ACADEMIC PROGRESSION

- PhD student in the group of Prof. Dr. Jens Timmer Since Jan 14
- ‘Diplom’ study of physics at the University of Freiburg Oct 05 - Apr 13
- Bachelor study of economics at the University of Freiburg Oct 07 - Jul 11
- A-level at the Kepler-Gymnasium Freiburg Jul 04

AWARDS AND HONORS

- Alumni Award from the University of Freiburg Jul 14
- Scholarship awarded from e-fellows.net Jan 08 – Apr 13
- Scholarship awarded from Friedrich-Ebert-Stiftung Oct 08 – Apr 13

RESEARCH INTERESTS

- Mathematical modelling of the EGF/HGF crosstalk mechanisms
- Linking model-derived features to cell fate via machine learning
- Modelling of early dynamics in the Reelin signalling cascade
- Establishing a gene network for developmental timing in early Zebrafish embryos through Pou/Sox transcription factors
- Approximation of prediction and validation bands via integration methods with adapted correction mechanisms
- Integration and optimisation techniques, sensitivity computation
- Co-Developer of open-source d2d-framework

PROFESSIONAL EXPERIENCE

- Intern at Merrimack Pharmaceuticals, Boston, USA Feb 16 – Sept 16
- Scientific employee at University of Freiburg Since Jan 14
- Research associate at ATLAS, Cern, Geneva Jul 13 – Aug 13
- Seminar moderation at Friedrich-Ebert-Stiftung Feb 12 – Dec 13
- Internship at BDO AG, Düsseldorf Apr 11 – Jul 11
- Student assistant at University of Freiburg Oct 08 – Apr 12

PUBLICATIONS

D. Kurzhunov, R. Borowiak, H. Hass, P. Wagner, A. Krafft, J. Timmer M. Bock, (2016). In vivo quantification of oxygen metabolic rates in the human brain with dynamic ^{17}O MRI: profile likelihood analysis. *Magnetic Resonance in Medicine*

T. Maiwald, H. Hass, B. Steiert (shared), J. Vanlier, R. Engesser, A. Raue, F. Kipkeew, H.H. Bock, D. Kaschek, C. Kreutz, J. Timmer, (2016). Driving the model to its limit: profile likelihood based model reduction. *PLoS ONE* **11**(9)

R. Merkle, B. Steiert, F. Salopiata, S. Depner, A. Raue, N. Iwamoto, M. Schelker, H. Hass, M. Wäsch, M. Böhm, O. Mäcke, D.B. Lipka, C. Plass, W.D. Lehmann, C. Kreutz, J. Timmer, M. Schilling, U. Klingmüller, (2016). Identification of cell type-specific differences in erythropoietin

receptor signaling in primary erythroid and lung cancer cells. *PLoS Comp. Biology* **12**(8)

Hass, H, Kreutz C, Timmer J, Kaschek D, (2016). Fast integration-based prediction bands for ordinary differential equation models. *Bioinformatics* **32**(8)

Raue, A., Steier, B., Schelker, M., Kretz, C., Maiwald, T., Hass, H. ... & Timmer, J. (2015). Data2Dynamics: a modeling environment tailored to parameter estimation in dynamical systems. *Bioinformatics* **31**(21)

CONFERENCES

- Frontiers of Systems Biology in Engineering, Magdeburg, Germany: Poster Oct 16
- Conference of Systems Biology of Human Disease, Boston, United States: Poster Jun 16
- Conference of Systems Biology of Human Disease, Heidelberg, Germany: Poster Jul 15
- Annual meeting of e:Bio consortium, Berlin, Germany: Poster Sep 14
- Conference of Systems Biology of Mammalian Cells, Berlin, Germany: Poster May 14
- Advanced Lecture Course in Systems Biology, Innsbruck, Austria: Poster Feb 14
- Jahrestagung Deutsche physikalische Gesellschaft, Dresden
Talk: „Search for the Standard Model Higgs boson in the $H \rightarrow \tau\tau$ decay mode in proton-proton collisions at $\sqrt{s}=7$ TeV“ Feb 13

FUNCTIONAL SKILLS

- Programming: C, C++, Python, PHP, SQL, VBA, MATLAB, R, Java, Office, Latex, Photoshop
- Language: German - mother tongue, English - fluent