

ACADEMIC PROGRESSION

- PostDoc in the group of Prof. Dr. Jens Timmer Since Jan 18
- PhD student in the group of Prof. Dr. Jens Timmer Jan 14 – Dec 17
- ‘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 receptor tyrosine kinase crosstalk mechanisms in cancer
- Linking model-derived features to cell fate via machine learning
- Transcription factor networks for developmental timing in Zebrafish, RNAseq analysis
- Approximation of prediction and validation bands via integration methods
- Optimization techniques, sensitivity computation
- Co-Developer of open-source framework Data2Dynamics

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

H. Hass, F. Kipkeew, A. Gauhar, E. Bouché, P. May, J. Timmer, H.H. Bock, (2017). Mathematical model of early Reelin-induced Src family kinase-mediated signaling. *PLoS ONE* **12**(10), e0186927

H. Hass, K. Masson, S. Wohlgemuth, V. Paragas, J.E. Allen, M. Sevecka, E. Pace, J. Timmer, J. Stelling, G. MacBeath, B. Schoeberl, A. Raue, (2017). Predicting ligand-dependent tumors from multi-dimensional signaling features. *npj Systems Biology and Applications* **3**(1)

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 ¹⁷O MRI: profile likelihood analysis. *Magnetic Resonance in Medicine* **78**(3)

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)

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

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

CONFERENCES

- Workshop: ODE Modelling in Systems Biology, Freiburg, Germany: **Talk** Sep 17
- Conference of Systems Biology of Human Disease, Heidelberg, Germany: **Talk** Jul 17
- 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, Office, Latex
- Language: German – mother tongue, English – fluent, French - basic