

# Fritz Kutter Prize Winners

## 2024

Zhenhao He, Dissertation ETH, «Distributed Computing with Specialized Hardware in the Data Center».

Florian Burkhardt, Master Thesis University of Basel, «[Bone Fragment Reconstruction for Forensic Analysis](#)»

## 2023

Jovan Blanuša, Dissertation EPFL, «[Acceleration of Graph Pattern Mining and Applications to Financial Crime](#)».

Sankalan Pal Chowdhury, Master Thesis ETHZ, «A Dialogue Tutoring Dataset with Rich Pedagogical Properties Grounded in Math Reasoning Problems»

## 2022

Emre Aksan, Dissertation, ETH Zurich, "[Learning Representations for Generative Modeling of Human Dynamics](#)" . "

Muyu Li, Master Thesis, ETH Zurich, "[Efficiently Scheduling Remote And Local Resources in ML Data Input Pipeline](#)".

## 2021

Lana Josipovic, Dissertation, EPF Lausanne "[High-Level Synthesis of Dynamically Scheduled Circuits](#)"

## 2020

Kazuhiro Morimoto, Dissertation, EPFL, "[Megapixel Cameras for Time-Resolved Applications](#)".

Nina Wiedemann, Master Thesis, ETH Zurich, "[Algorithmic Approaches for Optimizing Linear Infrastructure Planning](#)"

## 2019

Celestine Mender-Dünner, Dissertation, ETH Zurich, "[System-Aware Algorithms For Machine Learning](#)"

Lucy Linder, Master Thesis, University of Applied Sciences Fribourg, "[Using a Quantum Annealer for particle tracking at LHC](#)"

## **2018**

Manuel Le Gallo, Dissertation, ETH Zurich, "Phase-Change Memory: Device Physics and Application to non-von Neumann Computing"

Stanislaw Wozniak, Dissertation, EPF Lausanne, "Unsupervised Learning of Phase-Change-Based Neuromorphic Systems"

## **2017**

Thijs Vogels, Masterarbeit, ETH Zurich & Disney Research Zurich, "Kernel-Predicting Convolutional Neural Networks for Denoising Monte-Carlo Renderings"

Ralph Gasser, Masterarbeit, University of Basel, "Towards an All-Purpose, Content-Based Multimedia Information Retrieval System"

## **2016**

Zan Li, Dissertation, University of Bern, "Fine-grained indoor positioning and tracking systems"

Timo Horstschäfer, Masterarbeit, University of Zurich, "Parallel Tracking Depth Estimation and Image Reconstruction with an Event Camera"

## **2015**

Sofien Bouaziz, Dissertation, EPF Lausanne, "Realtime Face Tracking and Animation"

Tanja Kaeser Jacober, Dissertation, ETH Zurich, "Modeling and Optimizing Computer-Assisted Mathematics Learning in Children"

## **2014**

Basil Huber, Masterarbeit, University of Zurich, "High Speed Pose Estimation using a Dynamic Vision Sensor"

## **2013**

Albrecht Lindner, Dissertation, EPF Lausanne, "Semantic Awareness for Automatic Image Interpretation"

## **2012**

Feng Yang, Dissertation, EPF Lausanne, "Bits from Photons: Oversampled Binary Image Acquisition"

## **2011**

Alessandra Gorla, Dissertation, University of Lugano, "Automatic Workarounds: Exploiting the Intrinsic Redundancy of Software Systems"

Sukriti Ramesh, Masterarbeit, ETH Zürich, "CrowdDB - Answering Queries with Crowdsourcing"

## **2010**

Reto Gantenbein, Masterarbeit, University of Bern, "Virtualmesh: An Emulation Framework for Wireless Mesh Networks in OMNET++"

René Müller, Dissertation, ETH Zürich, "Data Stream Processing on Embedded Devices"

## **2009**

Babara Solenthaler, Dissertation, University of Zurich, "Incompressible Fluid Simulation and Advanced Surface Handling with SPH"

## **2008**

Noe Lutz, Masterarbeit, ETH Zürich, "Towards Revealing Attackers' Intent by Automatically Decrypting Network Traffic"

Ivana Jovanovic, Dissertation, EPF Lausanne, "Inverse Problems in Acoustic Tomography"

## **2007**

Dominique Guinard, Master's Thesis, University of Fribourg, RelateGateways: An Architecture to Enable Spontaneous Mobile Spatial Interaction with Pervasive Services (See article of the University of Fribourg and press release.)

## **2006**

Jörg Wagner, Semesterarbeit, ETH Zürich, "Analysis of Dynamics in Mobile Ad-hoc Networks"

Michael Rohs, Dissertation, ETH Zürich, "Linking Physical and Virtual Worlds with Visual Markers and Handheld Devices"

## **2005**

Christoph Göldi and Roman Hiestand, Master's Thesis, ETH Zurich, Scan Detection Based Identification of Worm-Infected Hosts, Zusammenfassung

## **2004**

Jonas Trindler and Raphael Zwiker, Diplomarbeit, HSR Rapperswil/Uni Zurich/ETH Zurich, Adaptive Building Intelligence, Zusammenfassug

## **2003**

Ibrahim Khalil, Dissertation, University of Berne, Dynamic Service Provisioning in IP Networks

## **2002**

no prize awarded

## **2001**

Roger Weber, Dissertation, ETH Zürich, "Similarity Search in High-Dimensional Vector Spaces"

Martin Gantenbein, Diplomarbeit, ETH Zürich, "The Train Length Problem"  
(See article in Zurich Newspaper "20 mins", 29 November 2001)

## **2000**

Raimond Reichert, Diplomarbeit, ETH Zürich, "Ein spielerischer Einstieg ins Programmieren: Kara, der programmierbare Marienkäfer" Fabrizio Smeraldi, Dissertation, EPF Lausanne, "Attention-driven Pattern Recognition"

## **1999**

Andreas Myka, Uni Tübingen, Germany Yuen-Hsien Tseng, Fu Jen Catholic Uni, Taiwan  
both on the theme "Automatic Cataloguing and Searching"

## **1998**

Guido Kaufmann, Uni Bern, "Erkennung von Handschrift mittels Hidden Markov Modellen"

Dirk Jonscher, Uni Zürich, "Access Control in Object-Oriented Federated Database Systems"

## **1997**

Matthias Zimmermann, Uni Bern, "Maschinelle Erkennung handgeschriebener Zahlen"

Martin Braschler, ETH Zürich, "Experimente mit sprachübergreifender Informationssuche"

## **1996**

Stefan Wengi, ETH Zürich, "Eine Benutzerverwaltung für RDFS"

Thomas Sprenger, ETH Zürich, "Software- und Hardwareimplementation der IrDA-Protokollstack"

## **1995**

Berthe Choueiry, ETH Lausanne, "Abstraction Methods for Resource Allocation"

Gerard Milmeister, ETH Zürich, "Functional Kernel with Modules"

## **1994**

Ruggero Milanese, Uni Genf, "Detecting Salient Regions in an Image: From Biological Evidence to Computer Implementation"

Martin Wechsler, ETH Zürich, "Ermittlung der Retrieval-Effektivität eines Speech Retrieval Systems"

Prem Kuma Kalra, Uni Genf, "An Interactive Multimodal Facial Animation System"

Markus Roth, Uni Bern, "Off-line Erkennung kursiver Handschrift mit Markov-Modellen"

## **1993**

Alex Birrer, ETH Zürich, "Entwurf eines Datenmodells für die Verwaltung und Analyse von Bienengesundheitsdaten"

## **1992**

Ambros Marzetta, ETH Zürich, "Hochleistungs-Transportprotokoll für transaktionsorientierte Anwendungen"

Rene W. Keller, ETH Zürich, "Entwicklung einer Retrieval-Komponente für ein Speech Retrieval System"

Thoma Meier, Uni Freiburg, "Grundlagen für den Aufbau und die Entwicklung eines Information Retrieval Systems"