



Andreas Fischer

Curriculum Vitæ

Academic career

- 2016/2017 **Dissertation in computer science (Dr. rer. nat.)**, *University of Passau*.
Thesis submitted; Defense expected early 2017
Topic: “An Evaluation Methodology for Virtual Network Embedding”
- 2008–2016 **Research Associate**, *University of Passau*.
Chair for Computer Networks and Computer Communication, Prof. Hermann de Meer
- 2008 **Diploma (Master level) in computer science**, *University of Passau*.
Thesis topic: *Using X-Trace to detect and analyze misbehavior in computer networks*
- 2001–2008 **Studies in computer science**, *University of Passau*.

Collaboration and roles in national and international projects

- since 2013 **FORSEC**, *Security in highly connected IT systems*.
Bavarian research cluster, 4 partner institutions
<http://www.bayforsec.de/>
Special roles: proposal writing; local coordination
- since 2012 **Cooperation with Siemens**, *Contract research*.
Bi-lateral cooperation
Special roles: proposal writing; local coordination
- 2011-2015 **EINS**, *Network of Excellence in Internet Science*.
EU FP7 Network of Excellence, 46 partner institutions
<http://www.internet-science.eu/>
Special roles: local coordination
- 2011-2014 **All4Green**, *Active collaboration in datacenter ecosystem to reduce energy consumption and GHG emissions*.
EU FP7 STREP, 9 partner institutions
<http://www.all4green-project.eu/>
- 2008-2012 **EuroNF**, *Anticipating the Network of the Future*.
EU FP7 Network of Excellence, 37 partner institutions
http://cordis.europa.eu/project/rcn/85336_en.html
- 2010-2011 **EuroNF - VNREAL**, *Virtual Network Resource Embedding Algorithms*.
EuroNF sub-project, 3 partner institutions
<https://www3.informatik.uni-wuerzburg.de/research/projects/vnreal/>
Special roles: proposal writing; local coordination; development of ALEVIN simulator

Bräugasse 10 – 94032 Passau, Germany

☎ +49 176 8206 1897 • ✉ andreas.fischer@uni-passau.de

🌐 <http://www.net.fim.uni-passau.de/fischer>

- 2008-2010 **ResumeNet**, *Resilience and Survivability for Future Networking: Framework, Mechanisms, and Experimental Evaluation*.
EU FP7 STREP, 9 partner institutions
<http://www.resumenet.eu/>
Special roles: local coordination
- 2008-2010 **Autol**, *Autonomic Internet*.
EU FP7 STREP, 10 partner institutions
<http://fp7-autoi.eu/>
Special roles: local coordination

Further academic activities

Organization of conferences and workshops

- 2016 **INSCI'16**, *3rd International Conference on Internet Science*, TPC member.
<http://insci2016.complexworld.net/>
- 2015 **IS'15**, *2nd International Conference on Internet Science*, TPC member.
- 2014 **USRR'14**, *2nd International Workshop on Understanding the inter-play between Sustainability, Resilience, and Robustness in networks*, TPC member.
<http://www.rndm.pl/2014/USRR/>
- 2014 **SHCIS'14**, *1st Workshop on Security in highly connected IT systems*, TPC member.
<https://confdriver.ifs.tuwien.ac.at/dexa2014/home/473>
- 2013 **IWSOS'13**, *7th International Workshop on Self-Organising Systems*, TPC member.
- 2010 **e-Energy'10**, *1st International Conference on Energy-Efficient Computing and Networking*, Local Organization Committee member.
<http://www.fim.uni-passau.de/en/computer-networks/research/hosted-conferences/e-energy-2010/>

Project proposal reviews

- 2013 **INFRA Programme**, *Agence nationale de la recherche (ANR) Call for Proposals*, Expert reviewer.

Journal paper reviews

- 2015 **e&i Elektrotechnik und Informationstechnik**, *1 paper*.
- 2013-2015 **IEEE/ACM Transactions on Networking**, *3 papers*.
- 2016-2017 **IEEE Transactions on Network and Service Management**, *2 papers*.
- 2014 **Elsevier Ad Hoc Networks**, *1 paper*.
- 2012-2014 **IEEE Communication Letters**, *3 papers*.
- 2009-2013 **Elsevier Computer Networks**, *4 papers*.
- 2011 **Elsevier Computer Communications**, *1 paper*.

Teaching activities

Tutorials and lecture support

- 2011-2016 **3 lectures on the foundations of communication networks**, *Computer Networks, Computer Networks I, Introduction to Internet Computing*.
Organization of tutorials; preparation of lecture slides; stand-in for multiple lecture dates

Bräugasse 10 – 94032 Passau, Germany

☎ +49 176 8206 1897 • ✉ andreas.fischer@uni-passau.de

🌐 <http://www.net.fim.uni-passau.de/fischer>

- 2009-2016 **2 lectures on advanced networking topics**, *Computer Networks III, Computer Networks and Energy Systems*.
Organization of tutorials; preparation of lecture slides
- 2008 **Lecture on IT Security**, *IT Security*.
Organization of tutorials
- [Practical training: Software Engineering and Distributed Systems](#)
- 2016 **Developing a testing framework for ALEVIN**.
Programming assignment; supervision of a group of two students
- 2012-2013 **Writing a football simulation in Java**.
Programming assignment; supervision of a group of four students
- [Seminars \(Bachelor and Master level\)](#)
- 2008-2015 **3 seminars on network resilience and security**.
Seminar organization; supervision of students; grading of assignments
- 2010-2013 **3 seminars on network virtualization**.
Seminar organization; supervision of students; grading of assignments
- 2008 **Seminar on virtualization techniques**.
Seminar organization; supervision of students

Supervised theses

Master and diploma theses

- 2015 **Modeling and Evaluation of Secure Embedding of Virtual Networks in Critical Infrastructures**.
T. Sera
- 2012 **Multilevel Security for Virtual Network Embedding**.
F. Kokot
- 2011 **Energy-efficient Assignment of Virtual Resources**.
M. T. Beck
- 2010 **Discovery of malicious nodes in P2P-Overlay-Networks using the X-Trace framework**.
M. Fischaleck

Bachelor theses

- 2015 **Metrics Evaluating the Resilience of Virtualized Networks**.
F. Buske
- 2015 **Delay aware virtual network embedding**.
M. Engelstädter
- 2015 **Security requirements for Virtual Network Embedding**.
R. Kühn
- 2013 **Virtual Network Embedding with different topologies**.
P. Huppert
- 2012 **Security-Extensions for Embedding Virtual Networks**.
J. Willerding

Bräugasse 10 – 94032 Passau, Germany

☎ +49 176 8206 1897 • ✉ andreas.fischer@uni-passau.de

🌐 <http://www.net.fim.uni-passau.de/fischer>

- 2009 **Identification of Routing Misbehavior in IPv4 Networks via Application of the X-Trace Framework.**
S. Peters
- 2009 **Dynamic Management of Network Resources in Virtual Networks.**
I. Gehl
- 2008 **Dynamic Management of Logical Connections between Virtual Xen-Routers.**
A. Tigaeru

Tools and programming

- Main developer of ALEVIN – a Java-based simulation framework for virtual network embedding algorithms (<http://alevin.sf.net/>)
- Programming language experience: Java, Python, C
- System administration experience: Linux, Windows

Language knowledge

German Native speaker
English Fluent in writing and speech
French Advanced learner