

## **Xiaoming Fu, Full Professor, PhD.**

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### **Education, Employment and Work Experience**

2009	“Fulbright Scholar Visiting Professor” at Department of Computer Science, UCLA, USA
2007-2008	DAAD Visiting Faculty at Department of Computer Science, Columbia University, USA
2010-2012	Dean for Academic Affairs – Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen
Since 2007	Professor and Head of Computer Networks Group, University of Göttingen
Since 2005	Visiting/Guest Professor at Tsinghua U. (2010- ), Nanjing U. (2010- ), Fudan U. (2011- ), Shanghai U. of Finance & Economics (2020- ), Northeastern U. (2017- ), Huazhong U. of Sci. & Tech. (2019), Hong Kong PolyU (2015), China; Columbia U. (2008, 2009), UCLA (2009), U. Oregon (2020), USA; U. Cambridge (2005, 2007, 2019), Aston U. (2019), UK; Uppsala (2014, 2015), Sweden; Sorbonne U./LIP6 (2014, 2016), France; Victoria U. (2018, 2019), Australia
2003-2005	Specialist Task Force Expert (STF 256 & STF 276), <a href="#">European Telecommunications Standards Institute</a> , Sophia Antipolis, France
2007	Habilitation (venia docendi) in Computer Science, University of Göttingen
2002-2007	Assistant Professor, Institute of Computer Science, University of Göttingen
2000-2002	Member of Scientific Staff, <a href="#">Telecommunications Networks Group</a> , <a href="#">TU Berlin</a> , Germany
2000	PhD in Computer Science, <a href="#">Tsinghua University</a> , Beijing, China
1997-2000	Research Assistant, Department of Computer Science, Tsinghua University, China
1997	Master’s degree in Computer Science (with honors), <a href="#">Northeastern University</a> , China
1994	Bachelor’s degree in Electrical Engineering, Northeastern University, China

### **Awards and Honors**

2021	ACM Distinguished Member for Outstanding Scientific Contributions to Computing
2021	IEEE Fellow (Class 2022)
2019	Distinguished Member of IEEE INFOCOM 2019 Technical Program Committee
2019	Distinguished Fudan Scholar (Fudan University, China)
2018	Member of Academia Europaea (The Academy of Europe)
2017	Fellow of Institution of Engineering and Technology (IET)
2014-2015	IEEE Distinguished Lecturer (Communications Society)
2019	Best Paper Award Finalist, IEEE/ACM CCGrid 2019
2017	Best Paper Award Finalist, IEEE LCN 2017
2017	Best Paper Award, IEEE/ACM 9 <sup>th</sup> Workshop on Hot Topics in Planet-Scale Mobile Computing and Online Social Networking (HotPOST 2017)
2016	Best Paper Award Finalist, ACM 10 <sup>th</sup> International Workshop on Mobility in the Evolving Internet Architecture (MobiArch 2016)
2014	Best Paper Award, ACM 1 <sup>st</sup> Conference on Information-Centric Networking (ICN 2014)
2013	Best Paper Award, IEEE International Workshop on Local & Metropolitan Area Networks (LANMAN 2013)
2009	Changjiang Scholar Visiting Professor, Tsinghua University, China (Awarded by the Ministry of Education, PR China)
2009	Fulbright Scholar Visiting Professor, UCLA, USA (Awarded by the US Department of State)
2005	University of Göttingen Foundation Council's Prize for Exceptional Publications by Young Scientists

## Professional Activities

Leaderships in Scientific Communities	<p><u>Chair</u> (2011-2013) and <u>Awards Committee Chair</u> (2014-2017) of <a href="#">Internet Technical Committee (ITC)</a>, <a href="#">IEEE Communications Society (ComSoc)</a> and the <a href="#">Internet Society (ISOC)</a></p> <p><u>Vice Chair</u> (2010-2012), <u>Secretary</u> (2008-2010) of IEEE ComSoc <a href="#">Technical Committee on Computer Communications (TCCC)</a></p> <p><u>Election committee</u> (2019), IEEE ComSoc <a href="#">Technical Committee on Green Communications and Computing (TCGCC)</a></p> <p><u>Award Committee</u> (2021-2022): IEEE ComSoc <a href="#">CNOM Young Professional Award (YPA)</a></p> <p><u>Coordinator, Chief Scientist and Steering Committee Chair</u>: EU FP7 <a href="#">MobileCloud</a>, <a href="#">GreenICN</a>, <a href="#">CleanSky</a> projects; EU H2020 <a href="#">ICN2020</a> project</p> <p><u>Co-Founder, Workpackage Leader &amp; Steering Committee Member</u>: EU FP6 <a href="#">ENABLE</a>, <a href="#">MING-T</a> and <a href="#">VIDIOS</a> projects; EU H2020 <a href="#">COSAFE</a> project</p> <p><u>Vice Director</u> (2013-now), Center for Social Network Research, Tsinghua University, China</p> <p><u>Board Member</u> (2018-now), <a href="#">Tsinghua-NRI China Research Center</a>, China</p>
International Research Grant Committees	EU FP7 (2012) and Horizon 2020 (2014), DFG (2015- ), NSF (2021), National Natural Science Foundation of China (2014- ), Research Foundation – Flanders, Belgium (2012), Swedish Foundation for Strategic Research (2009, 2011), Research Grants Council of Hong Kong (2010- ), Cyprus Research Promotion Foundation (2017, 2018)
Scientific Editorial Board	<p><u>Founding Co-Editor in Chief</u>, Journal of Social Computing (2020- , IEEE &amp; Tsinghua Univ Press);</p> <p><u>Technical Editor</u>, IEEE Communications Magazine (2013-2020), IEEE Network (2020- );</p> <p><u>Founding Associate Editor</u>, IEEE Networking Letters (2018- ), Springer/Nature Computer Science (2019- )</p> <p><u>Associate Editor</u>, IEEE Transactions on Network and Service Management (2011- ); IEEE Transactions on Network Science and Engineering (2019- )</p> <p><u>Editorial Board Member</u>, Chinese Journal of Electronics (2016- )</p> <p><u>Area Editor</u>, Elsevier Computer Networks (2012-2015), Computer Communications (2008-2020);</p> <p><u>Guest Editor</u> of IEEE Communications Magazine (Feature Topic on Information-Centric Networking Security, 2018; Feature Topic on Mobile Cloud Computing, Mar. 2015), IEEE Network (Special Issue on Interplay between Machine Learning and Networking Systems, Nov 2021; Special Issue on Implications and Control of Middleboxes in the Internet, Sept/Oct. 2008), IEEE Transactions on Network Science and Engineering (Special Issue of The Nexus Between Edge Computing and AI for 6G Networks, 2022), Elsevier Computer Networks (Special Issue on Measurement-based Optimization of P2P Networking and Applications, Feb. 2012), Computer Communications (Special Issue on Online Social Networks, Jan. 2016), Springer World Wide Web Journal (Special Issue on Big Data Analytics and Social Computing, Nov. 2019).</p>
Conference Organization & Tech. Program Committees	<p><u>General (Co-)Chair</u> of ACM SIGCOMM APNet'21, IEEE International Conference on Smart City Innovations (SCI)'21, IEEE HotICN'19, ACM ICN'16, IEEE ICNP'13, IEEE P2PNet'10;</p> <p><u>TPC (Co-)Chair</u> for WISA'21, IFIP Networking'20, IEEE NIPAA@ICNP'20-'21, NewIP@INFOCOM'20, ACM ERCNetworking@SIGCOMM'18, IEEE HotICN'18, IEEE/ACM/VDE/GI NetSys'17, ACM CFI'16, IEEE CloudNet'13, ACM HotSocial@KDD'12, IEEE ICC'12-AIC, ICCCN'10-ISAP, GLOBECOM'09-NGNI, ACM MobiArch'06-'07@SIGCOMM, MobiArch'12@MobiCom, HotPlanet@MobiSys'09, NVWS@KiVS'09, DFG-JSPS Workshop on Future Networks &amp; Mobile Sensing'15, DFG-NSFC Symp. on Social Computing'16, DFG-NSFC Workshop on IoT'10...;</p> <p><u>TPC Member/Session Chair</u> for a number of conferences, incl. ACM CoNEXT, ANCS, ICN, COSN, IEEE INFOCOM, ICNP, ICDCS, IWQoS, CloudCom, CCW, SIAM SDM, IFIP Networking, etc.;</p> <p><u>Workshops Co-Chair</u>: ACM SIGCOMM'18, MobiCom'10 &amp; MobiHoc'10, IEEE ICNP'16;</p> <p><u>Publicity Co-Chair</u>: IEEE ICNP'11, IWQoS'10, ICNP'09;</p> <p><u>Publications Chair</u>: ACM Conference on Online Social Networks (COSN)'13;</p> <p><u>Poster Co-Chair</u>: ACM SIGCOMM'19;</p> <p><u>PhD Forum (Work-in-Progress Session) Chair</u>: 33<sup>rd</sup> Int'l Teletraffic Congress (ITC 2021);</p> <p><u>Steering Committee Member/Chair</u>: ACM COSN (2013-2014), MobiArch (chair, 2007-now), HotPlanet (2010-14), IEEE Global Internet Symposium (chair, 2011-2013), INFOCOM-NOM (2014), INFOCOM-ICCN (2019-2022), ICNP-ICAV (2021), ICDCS-NMIC (2019-2020), HotICN (2018-2020), CCW (2008-2012).</p>

Keynote/ Tutorials/ Panelist	<u>Keynote</u> at IEEE LCN'21, BigCom'21, QShine'20, ICSC'19,'20, IEEE INFOCOM'19-ICCN, IEEE HotICN'17, ACM MobiHoc-HotPOST'16, IEEE Global Internet Symp.'15, Social Computing Workshop'15, IFIP Networking'12, etc; <u>Panelist/panel chair</u> at LANMAN'15, ICNP'14 & PhD Forum, KDD'12-HotSocial, MobiCom'09-MobiArch, MobiCom'09-MICNET, KiVS'09; <u>Tutorials</u> at EU CleanSky ITN Summer School'16-'18, IFIP Networking'06, IEEE ICCCN'10, Frontiers of Journalism & Communication Summer School'12 at Renmin University of China.
PhD Supervision and External Review	Successfully supervised 33 PhD theses to completion (and 7 are ongoing), among which 7 got highest "Summa Cum Laude" grade, and 16 became faculty members worldwide (USA, Germany, Ireland, India, China, Pakistan etc). External PhD thesis review: UBC, Canada (2019), UPMC (2016, 2018), U Oslo (2010, 2017), Waterford Inst. of Technology (2016), Telecom SudParis (2015, 2020), Aalto U (2014, 2015), U Liège (2012), VU Brussels (2011), U Helsinki (2010), Dublin City U (2010), Tsinghua U (2010), Nankai U. (2016), Southeast U (2020)

## University Services

Since 2019	Member of Center for Statistics (ZfS), University of Göttingen
Since 2019	Member of Campus Institute of Data Science (CIDAS), University of Göttingen
Since 2015	Founding Director, Sino-German Institute of Social Computing, University of Göttingen <ul style="list-style-type: none"> <li>• <i>Initiated two DFG/MoE International Research Training Group initiatives on <b>social big data</b> with Tsinghua University and Nanjing University, China, respectively;</i></li> <li>• <i>Currently participating in the DFG Collaborative Research Center proposal "<b>Embracing Heterogeneity with Data Science</b>", responsible for project "Exploring Heterogeneous Spatio-Temporal Data Measured on Multiple Scales";</i></li> <li>• <i>Participated in the DFG Excellence Cluster "<b>LUSci - Integrative Land Use Science for Sustainable Development</b>" proposal, responsible for proposing a new professorship and a new competence center on "land-use data science" at Univ of Göttingen;</i></li> <li>• <i>Participated in <b>German Internet Institute (DII)</b> initiative proposal led by L3S (<a href="http://www.l3s.de">www.l3s.de</a>), responsible for proposing one new professorship on "social computing" at Univ of Göttingen.</i></li> </ul>
2010 – 2012	Dean for Academic Affairs – Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen <ul style="list-style-type: none"> <li>• <i>Responsible for various academic training activities: teaching, supervision, admission and degree regulations &amp; implementation, representing the faculty on the university board;</i></li> <li>• <i>Initiated and established the internationalization of research-oriented MSc program in "Applied Computer Science"</i></li> </ul>
Since 2011	Steering Committee of international master study program 'Internet Technology and Information Systems (ITIS)', Universities of Göttingen, Hannover, Braunschweig & Clausthal <ul style="list-style-type: none"> <li>• <i>Regulation setup, admission, and degree decision making and implementation</i></li> </ul>
2010 – 2011	Faculty Search Committee, Junior Professorship "Computer Security", University of Göttingen
Since 2009	Board Member of Institute of Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen (Since 2012) International Officer – Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen (Since 2019) Speaker/Director, PhD Program in Computer Science & Chair of Admission Committee, Master Program in Applied Computer Science, University of Göttingen <ul style="list-style-type: none"> <li>• <i>Involved in various financial, administrative, education &amp; personnel development;</i></li> <li>• <i>Established and coordinating cooperation/exchange agreements with several universities in USA (Columbia U, UCLA), France (UPMC), Italy (U Roma2), Greece (Alexander TEI of Thessaloniki), Norway (NTNU), Japan (National Institute of Informatics), China (Tsinghua U, Peking U, Nanjing U, Fudan U, Northeastern U., Dalian University of Technology, BUPT);</i></li> <li>• <i>Serving on recruitment committees for new faculty and staff members;</i></li> <li>• <i>Chairing the Computer Science PhD program and master admission committee.</i></li> </ul>
Since 2007	Head of Computer Networks Group, Institute of Computer Science, University of Göttingen <ul style="list-style-type: none"> <li>• <i>Offering undergraduate and graduate-level courses as well as student projects and thesis in the area of Internet technologies, mobile computing and social data analytics;</i></li> <li>• <i>Responsible for managing the continuous financial and human resources;</i></li> <li>• <i>Responsible for research (including grant raising) activities of the group's interest;</i></li> <li>• <i>Educating young researchers (MSc/PhD students, postdocs, visitor etc) for future career.</i></li> </ul>

- 2021 – 2023 Hosting a Humboldt Fellow (Dr. Tingting Yuan)
- 2014 – 2016 Hosting a Humboldt Fellow (Dr. Xu Chen, now Full Professor of computer science and vice director of State Joint Engineering Lab of Digital Home Interactions at Sun Yat-sen U., China)
- 2012 – 2014 Hosting a Humboldt Fellow (Dr. Wenzhong Li, now Full Professor at Nanjing U., China)
- Since 2005 Thesis Committee Member of “PhD in Computer Science” program, University of Göttingen
- Since 2002 Member of Center for Computational Science (ZFI/ZAI), University of Göttingen

### Ongoing and Supervised Doctoral Students

Candidates and thesis titles	Start	End	Further career of the candidate
Li, Zhengze	2021	Ongoing	
Wölk, Fabian	2020	Ongoing	
Gutierrez-Marques, Pablo (extern.)	2020	Ongoing	Researcher at MPI for Solar System Research
Wang, Yunxiao (co-supervise with Yong Wang, MPI for Dynamics and Self-Organization)	2020	Ongoing	
Wang, Weijun	2019	Ongoing	
Ren, Bangbang	2019	Ongoing	
Zhang, Jiaquan User identification and community exploration via mining big personal data in online platforms	2017	2021	Algorithm Engineer at Huawei Technologies
Shao, Yachao Imbalance Learning and Its Application to Medical Datasets	2018	2021	Research Assistant Professor at Chinese Academy of Military Sciences, China
Xu, Shuai (co-supervise with Jiuxin Cao, Southeast University) Key Techniques of User Geo-Location Prediction with Big Data	2017	2020	Assistant Professor at Nanjing University of Aeronautics and Astronautics, China
Ding, Shichang User Attribute Inference via Mining User-Generated Data	2016	2020	Assistant Professor at Information Engineering University, China
Adhatarao, Sripriya Srikant PHOENIX: A Premise to Reinforce Heterogeneous and Evolving Internet Architectures with Exemplary Applications (“ <b>summa cum laude</b> ”)	2015	2020	Technical Project Manager at Apheris AI GmbH, Germany
Zhao, Bo (co-supervise with Ramin Yayahpour): Consumer Behavior Analysis and Repeat Buyer Prediction for E-Commerce	2015	2019	Assistant Professor at Information Engineering University, China
Zhao, Tao: Identification of Users’ Social Status via Mining Online Big Data	2015	2019	Assistant Professor at NUDT, China
Barakat, Osamah Lutf: Efficient Data Management and Policy Composition for Software-defined Networking	2015	2019	Network Architect-SDWAN at Siemens AG, Germany
Kulkarni, Sameer: Resource Management for Efficient, Scalable and Resilient Network Function Chains (“ <b>summa cum laude</b> ”; recipient of <i>IEEE TCSC Outstanding PhD Dissertation Award 2019</i> )	2015	2018	Assistant Professor at IIT Gandhinagar, India
Prasad, Abhinandan: Automated Provisioning of Fairly Priced Resources	2015	2018	Assistant Professor at National Institute of Engineering, Mysore, India
Silvestro, Alessio:	2015	2018	Senior Research Scientist at Philip Morris

Architectural Support for Implementing Service Function Chains in the Internet			International, Bologna, Italy
Zhang, Fei (co-supervised with Ramin Yahypour): Challenges and New Solutions for Live Migration of Virtual Machines in Cloud Computing Environments	2014	2018	Research Assistant Professor at Chinese Academy of Military Sciences, China
Dong, Enhuan (co-supervise with Mingwei Xu, Tsinghua University): Multipath TCP Flow Scheduling in Data Center Networks and Lossy Networks	2018	2019	Research Assistant Professor at Tsinghua University, China
Stango, Antonietta (co-supervised with Dario Farina, University Medical Center Göttingen/ Imperial College London): Increasing the Robustness of Active Upper Limb Prostheses	2013	2016	Researcher at IRCS San Giovanni di Dio Fatebenefratelli Clinical Research Center, Brescia, Italy
Huang, Hong: Triadic Closure and Its Influence in Social Networks. A Microscopic View of Network Structural Dynamics ( <b>'summa cum laude'</b> )	2012	2016	Associate Professor of Computer Science, Huazhong University of Science and Technology, China
Xu, Ren (co-supervised with Dario Farina, University Medical Center Göttingen/Imperial College London): Short-Latency Brain-Computer Interface Using Movement-Related Cortical Potentials	2012	2016	Senior Scientist and Group Leader at g.tec Medical Engineering GmbH, Austria
Pu, Lingjun (co-supervised with Jingdong Xu, Nankai University): On Service Design and Key Issues in 5G Edge Network Architecture	2011	2016	Associate Professor of Computer Science, Nankai University, China
Tao, Narisu: Data Driven Network Analysis and Applications	2011	2015	Data Scientist at Volkswagen Data:Lab, Munich, Germany
Zhang, Yuan: Dynamic Resource Scheduling in Cloud Data Centers	2011	2015	Associate Professor at Chinese University of Communications (CUC), Beijing, China
Koll, David: Towards a Robust and Secure Decentralized Online Social Network ( <b>'summa cum laude'</b> )	2011	2014	Senior Data Scientist at Continental Co. Ltd., Hannover, Germany
Chen, Jiachen: A Content-Oriented Architecture for Publish/Subscribe Systems ( <b>'summa cum laude'</b> )	2010	2015	Research Associate at WinLab, Rutgers University, USA
Jiao, Lei: Online Social Network Data Placement over Clouds (dissertation: <b>'summa cum laude'</b> )	2010	2014	Assistant Professor of Computer Science at University of Oregon, USA
Zhu, Konglin: Social-based Data Routing Strategies in Delay Tolerant Networks	2010	2014	Associate Professor at Beijing University of Posts & Telecommunications, China
Tschofenig, Hannes (extern, ARM Ltd): A Secure and Privacy-Friendly IP-based Emergency Services Architecture	2009	2019	Distinguished Engineer at ARM Ltd. Also: Member of Internet Architecture Board (IAB) (2010-2014)
Hameed, Sufian: Leveraging Email based Social Networks to Prevent Spam – Framework, System Design and Evaluation	2009	2012	Associate Professor at <a href="#">FAST-NUCES</a> , Pakistan
Tegeler, Florian: Content Agnostic Malware Detection in Networks ( <b>'summa cum laude'</b> )	2008	2012	Head of Industrial Digital Services & Product Manager at Mahr GmbH, Germany
Neumann, Niklas: Decentralized Network Based Mobility Management: Framework, System Design and Evaluation	2007	2011	Head of Department IT-Betrieb, Deutsche Post E-Post Solutions GmbH, Germany
Stiemerling, Martin: Cooperative Internet Access in Resource Constrained Environments	2007	2011	Professor and Dean at University of Applied Sciences Darmstadt, Germany. Also: IESG Member and IETF Transport Area Director (2012-2016)
Arumathurai, Mayutan: Network Friendly Congestion Control: Framework,	2007	2010	Expert 5G Technologies for Digital Rail, Deutsche Bahn AG

Protocol Design and Evaluation			
Shi, Lei: On the Network Monitoring and Fault Management of Next Generation Networks	2007	2010	Lecturer (Assistant Professor) at Institute of Technology Carlow, Ireland
Steinleitner, Niklas: Firewall Traversal in Mobile IPv6 Networks	2006	2008	Director, Department of Information and Communications Technologies, Lower Saxony State Authority for Road Construction & Transportation, Germany
Kuo, Fang-Chun: Exploiting Network Coding in Lossy Wireless Networks	2005	2009	Senior Expert, Deutsche Bahn, Germany
Lei, Jun: Media Distribution Using Overlay Multicast and Peer-to-Peer Technologies (' <b>summa cum laude</b> ')	2004	2008	Research Scientist at Nokia Solutions Networks

### Supervised Master Theses (at University of Göttingen unless noted)

Candidates and Titles	Degree	Year of Completion
Mining evolutionary pattern of academic collaboration network in computer science conferences (Cong Li)	MSc.	2021
Probabilistic Time Series Forecasting using ML Models for the Intraday Energy Market (Muhammad Ali Hamza)	MSc.	2021
The implementation of a QoE fairness video streaming system in mobile environments (Yuhan Wang)	MSc.	2021
Longitudinal Multiomics Analysis (Disha Purohit, ITIS student from Uni Hannover)	MSc.	2020
A multi-task deep learning approach to improve recommendation with incomplete user profiles (Yifan Chen)	MSc.	2020
Predicting Coziness of Cities Using Commute Data (Sven Voigt)	MSc.	2019
Information Centric Incentivized Networking (ICIN) (Alireza Zarei)	MSc.	2019
Cooperative Collision Avoidance for Autonomous Driving via Multi-Agent Deep Reinforcement Learning (Robert Tasik)	MSc.	2019
An analysis of user occupation through Quora (Kangcheng Wu)	MSc.	2019
Affiliation Analysis on Technical Program Committees of Major Computer Science Conferences (Nikolaj Kopp)	MSc.	2019
Design for an Android App and Data Analysis (Fangxi Deng)	MSc.	2019
The Evaluation and Optimization of Recommender System in Rating Prediction through Deep Learning Methods (Mingyu Chen)	MSc.	2019
Big Data Analysis: Market Research Using Online Social Network (M Firoz Kabir, ITIS student from TU Braunschweig)	MSc.	2018
AnswererRank: a topic-sensitive expert finding algorithm for stack overflow (Yue Chen)	MSc. Applied Statistics	2018
Feasibility study of an HTML5 version of a Flash application (Fabian Meyer)	MSc.	2017
Sybils in Disguise: An Attacker View on OSN-based Sybil Defenses (Martin Schwarzmaier)	MSc.	2017
Decentralizing Online Social Networks via Home Gateways (Dieter Lechler)	MSc.	2017
Design, Implementation and Comparison Evaluation of an ICN-based Architecture for Disaster Scenarios (Benno Martim Schubert)	MSc.	2016
Measurement and Analysis of Google Scholar (Cong Ding)	MSc.	2013
On Security of Decentralized, Matrix Factorization-Based Network Coordinate Systems (Shining Wu)	MSc.	2013
Evaluation of the Routing Performance of Various Mobility Solutions (Ghulam Muhammad, visiting student from FH Bremen)	MSc.	2011

Development of a Mobile Social Networking Platform Supporting Decentralized Data Storage Optimized by Social Trust (David Koll)	MSc.	2010
Performance Evaluation of TCP Variants over UMTS Networks (Nikunj Modi, visiting student from KTH, Sweden)	MSc.	2008
Security Analysis, Prototype Implementation and Performance Evaluation of a New IPSec Session Resumption Method (Florian Tegeler)	MSc.	2008
Implementation and Evaluation of the Peer-to-Peer-Protocol (P2PP) for P2PSIP (Kai Michael Cohrs)	MSc.	2008
RTP over Datagram TLS (Jonh-Patrick Wowra)	MSc.	2007
Implementation and Performance Evaluation of the IETF QoS NSLP Protocol (Bernd Schlör)	MSc.	2007
Diameter WebAuth: An AAA-based Identity Management Framework for Web Applications (Niklas Neumann)	MSc.	2007
HIP Access Control Using SIP (Steffen Wagner)	MSc.	2006
Implementation & Testing of NAT/Firewall NSLP Protocol (Niklas Steinleitner)	MSc.	2005
Implementation of a Signaling Router for the Euro6IX Premium Service (Ingo Juchem)	MSc.	2005
Prototypical Implementation and Experimental Testbed Setup of QoS-Enabled Mobility Concept Based on HMIPv6 (Axel Neumann, TU Berlin)	Dipl.-Ing.	2002

#### Other Employed/Hosted Research Fellows/Postdoctoral Researchers

Name	Start	End	Further career of the researcher
Dr. Yuan, Tingting (postdoc)	2020	Ongoing	Humboldt Fellow at Computer Networks Group, University of Göttingen, Germany
Dr. Yuan, Yali (postdoc)	2018	2021	Associate Professor at Southeast University, China
Dr. Adhatarao, Sripriya Srikant (postdoc)	2020	2021	Technical Project Manager at Apheris AI GmbH, Berlin, Germany
PD Dr. Arumaiturai, Mayutan (group leader/postdoc research employment during 2009-2011 and 2013-2020)	2013	2020	Expert 5G Technologies for Digital Rail, Deutsche Bahn AG, Berlin, Germany
Dr. Zheng, Hui (EU COSAFE visiting scholar for 10 months)	2019	2020	Assistant Professor at Beijing Information Science and Technology University, China
Dr. Zhao, Jinxu (visiting scholar from Tsinghua University for 4 months)	2019	2020	Associate Professor at Shandong Normal University, China
Gao, Xin (visiting scholar from Tsinghua University for 4 months)	2019	2020	PhD student at Tsinghua University, China
Lin, Mingkai (visiting scholar from Nanjing University for 3 months)	2019	2019	PhD student at Nanjing University, China
Li, Tan (visiting scholar from Tsinghua University for 3 months)	2018	2019	PhD student at Tsinghua University, China
Zhao, Hao (visiting scholar from Fudan University for 3 months)	2018	2018	PhD student at Polytechnic Institute of New York University, USA
He, Xinlei (visiting scholar from Fudan University for 3 months)	2018	2018	PhD student at Helmholtz Center for Information Security (CISPA) and University of Saarland, Germany
Dr Gong, Qingyuan (visiting PhD student from Fudan Univ for 4 months in 2016 and 2 months in 2019)	2016	2019	Postdoc at Fudan University, China
Dr. Li, Yong (EU MobileCloud visiting scholar from Tsinghua University for 3 months)	2016	2016	Professor, Department of Electronic Engineering, Tsinghua University, China
Dr. Fengli Xu (EU MobileCloud visiting scholar	2016	2016	Postdoc at Knowledge Lab, University of

from Tsinghua University for 3 months)			Chicago, USA
Dr. Zhang, Rongrong (visiting scholar from Université Paris V – René Descartes for 3 months)	2016	2016	Associate Professor, Capital Normal University, Beijing, China
Dr. Gao, Shang (visiting scholar from Deakin University for 4 months)	2016	2016	Senior Lecturer, Deakin University, Geelong, Australia
Dr. Yang, Song (EU CleanSky ITN Experienced Researcher)	2015	2017	Associate Professor, Department of Computer Science, Beijing Institute of Technology, China
Dr. Wang, Shixiong (visiting scholar from Zhejiang Sci-Tech University, China for one year)	2015	2016	Professor and Deputy Dean, School of Economics and Management, Zhejiang Sci-Tech University, China
Dr. Qiu, Kun (EU MobileCloud visiting scholar from Fudan University for 4 months)	2015	2016	Researcher at Intel Corp. R&D, China
Dr. Han, Xiao (visiting scholar from Telecom SudParis for 3 months)	2015	2015	Associate Professor, School of Information Management, Shanghai University of Finance and Management, China
Dr. Zhang, Xiao (EU MobileCloud visiting scholar from Nanjing University for 3 months)	2015	2015	Assistant Professor, School of Computer Science, Shandong University, China
Dr. Chen, Xu (Humboldt Scholar)	2014	2016	Professor, School of Data and Computer Sciences, Sun Yat-sen University, China
Dr. Sigg, Stephan (1.5 years of postdoc research employment at my group)	2013	2015	Associate Professor, Department of Communications and Networking, Aalto University, Finland
Dr. Du, Wei (1 year of postdoc research employment at my group)	2012	2012	Deep learning expert at TPVision (Philips TV), Belgium
Dr. Li, Wenzhong (Humboldt Scholar)	2011	2013	Professor, Department of Computer Science, Nanjing Univ, China
Dr. Liu, Hao (visiting PhD student from Tsinghua University for 4 months)	2011	2011	Cisco Systems, China
Dr. Xu, Tianyin (1.5 years of research employment at my group)	2010	2011	Assistant Professor, Department of Computer Science, University of Illinois at Urbana-Champaign (UIUC), USA
Dr. Chen, Yang (2 years of postdoc research employment at my group)	2009	2011	Associate Professor, School of Computer Science, Fudan University, China
Dr. Jin Zhao (EU-project sponsored research visit for 3 months at my group)	2009	2010	Associate Professor, School of Computer Science, Fudan University, China
Dr. Lübben, Ralf (1.5 years of research employment at my group)	2008	2009	Professor at University of Applied Sciences Flensburg, Germany
Dr. Yang, Xiaodong (1.5 years of postdoc research employment at my group)	2007	2008	Associate Professor and Head, Dept of Communication Technology, Zhejiang Gongshang University, Hangzhou, China
Dr. Le, Deguang (Visiting PhD student from Xiamen University for 1 year, then 1 year of research employment at my group)	2004	2006	Professor at Changshu Institute of Technology, Changshu, China

### Research Grants

Project title and funding sources	Start	End
Future Network Technologies, Gift funding supported by Huawei, €240K	2020	2022
On HTTP2.0+ over 5G/B5G Networks, Gift funding supported by Huawei, €89K	2019	2020
Zero-Touch/Automated Network Management with Artificial Intelligence, funded by Lower	2019	2020



Saxony Ministry of Education and Culture (MWK), €23K		
COSAFE - Cooperative Connected Intelligent Vehicles for Safe and Efficient Road Transport, funded by EU H2020 RISE program (PI), €828K (EU) / €202K (UGOE)	2018	2022
Detection and Prevention of Data Exfiltration by Insiders in Big Data Environments, funded by Universities Australia - German DAAD Joint Research Cooperation Scheme (PI), €11K	2018	2019
ICN2020 – Advancing ICN towards real-world deployment through research, innovative applications, and global scale experimentation, funded by EU H2020 ICT EU-Japan (coordinator), €1.3M (EU)+€1.3M (JP) / €510K (UGOE)	2016	2019
SocialBD – Social Networks in Big Data, funded by Lindemann Foundation, Germany, €10K	2016	2017
DFG-NSFC Symp. on Social Computing, funded by DFG-NSFC Sino-German Center, €45K	2016	2016
DFG-JSPS Symposium on Future Network and Pervasive Computing, funded by DFG, €15K	2015	2015
Socially-Motivated Cooperative Device-to-Device Communications, funded by Alexander von Humboldt Foundation	2014	2016
CleanSky – Network for Cloud Computing Eco-System, funded by EU FP7 MC-ITN (coordinator), €3.24M (EU) / €810K (UGOE)	2014	2018
MobileCloud – Linking Sino-European Research Institutions in Mobile Cloud Computing Era, funded by EU FP7 MC-IRSES (coordinator), €481K (EU) / €300K (UGOE)	2014	2016
GreenICN – Architecture and Applications of Green Information Centric Networking, funded by EU FP7 ICT EU-Japan (coordinator), €1.5M (EU)+€1.5M (JP) / €430K (UGOE)	2013	2016
SWZ – Simulation Research Center, funded by State Lower Saxony & Volkswagen Foundation, €50K	2013	2016
Conference: International Conference on Network Protocols (ICNP 2013), funded by DFG, €25K	2013	2013
Collaborative Data Dissemination in Delay Tolerant Mobile Ad Hoc Networks, funded by Alexander von Humboldt Foundation	2012	2014
SocialNets – Structure, Functionality and Dynamics of Social Networks, funded by Lindemann Foundation, Germany, €10K	2012	2013
Principles and Design of Next-Generation Internet Media Streaming (w/ Fudan University), funded by DAAD/CSC PPP-China, €27K	2011	2013
DFG-NSFC Symposium on Internet of Things, funded by DFG-NSFC Sino-German Center, €34K	2010	2010
Future Internet Mobility and Routing, funded by Fulbright Foundation/US Department of State	2009	2009
New Advances and Applications of Next Generation Internet Signaling (w/ Columbia University), funded by DAAD PPP-USA, €16K	2008	2009
ADVMM – Advanced Mobility Management in 4G Networks, funded by Huawei, €80K	2007	2008
MING-T – Multistandard integrated network convergence for global mobile and broadcast technologies, funded by EU FP6 IST STREP, €1.7M (EU) / €201K (UGOE)	2007	2009
ENABLE – Enabling Efficient and Operational Mobility in Large Heterogeneous IP Networks, funded by EU FP6 IST STREP, €2.45M (EU) / €420K (UGOE)	2006	2008
Daidalos-II – Designing Advanced network Interfaces for the Delivery and Administration of Location independent, Optimised personal Services, funded by EU FP6 IST Integrated Project, Co-PI, €13.8M / €200K (UGOE)	2006	2008
PTLS - Performance Study of Transport Layer Security, funded by Siemens Research, €20K	2005	2006
VIDIOS – Video Distribution over MPLS Networks supporting heterogeneous format environments, funded by EU FP6 Eureka Celtic & T-Systems (PI), €3.7M / €274K (UGOE)	2005	2006
MobiAuth – QoS and Authentication Issues in IP Mobility, funded by Panasonic Princeton Lab, USA (PI), \$15K	2003	2004

#### **Courses Taught (at University of Göttingen unless noted)**

- Winter Semester 2021/22: Data Science for Smart Cities (MSc., in collaboration with City Göttingen), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc), Seminar Internet Technologies, Advanced Topics in Mobile and Social Computing (MSc/PhD)
- Summer Semester 2021: Advanced Practical Course Data Science (MSc), Smart Cities (MSc., in collaboration with City Göttingen), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc), Seminar Advanced Topics in Mobile and Social Computing (MSc/PhD)

- Winter Semester 2020/21: Computer Networks (BSc), Seminar Advanced Topics in Mobile and Social Computing (MSc/PhD), Seminar on Internet Technologies (BSc/MSc), Practical Course on Smart Cities (MSc., in collaboration with City Göttingen)
- Summer Semester 2020: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2019/20: Computer Networks (BSc), Seminar Advanced Topics in Mobile Communications (MSc/PhD), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2019: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2018/19: Computer Networks (BSc), Seminar Advanced Topics in Mobile Communications (MSc/PhD), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2018: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2017/18: Computer Networks (BSc), Practical Course: Data Science (MSc/PhD/BSc), Practical Course Networking Lab (BSc), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2017: Advanced Practical Course Data Science (MSc/BSc), Seminar on Internet Technologies (Summer 2017) (MSc), Advanced Computer Networks (MSc), Practical Course Networking Lab (BSc)
- Winter Semester 2016/17: Practical Course Networking Lab (BSc), Computer Networks (BSc), Practical Course on Data Science for Computer Networks (MSc), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2016: Practical Course Networking Lab (BSc), Practical Course Advanced Networking: Data Science Edition (MSc), Advanced Topics in Social Network in Mobile Big Data (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc)
- Winter Semester 2015/16: Computer Networks (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Machine Learning and Pervasive Computing (MSc)
- Fall Semester 2015: Social Network and Big Data (MSc) at Tsinghua University
- Summer Semester 2015: Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Advanced Topics in Mobile Communications (AToMIC) (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc), Machine Learning and Pervasive Computing (MSc)
- Winter Semester 2014/15: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Machine Learning and Pervasive Computing (MSc)
- Summer Semester 2014: Advanced Topics in Social Network and Big Data Methods (MSc), Advances in Mobile Applications and Mobile Cloud Computing (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc)
- Winter Semester 2013/14: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Selected Topics in Pervasive Computing (MSc)
- Summer Semester 2013: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2012/13: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Social Networks Seminar (MSc)
- Summer Semester 2012: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2011/12: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Social Networks Colloquium (BSc/MSc)
- Summer semester 2011: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc)
- Winter Semester 2010/11: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (previously Telematik) (BSc), Seminar on Mathematical Models (MSc/PhD)
- Summer semester 2010: Seminar Advanced Topics in Mobile Communications, Seminar Internet Technologies; Practical Course Networking Lab.
- Winter semester 2009/10: seminars Internet Technologies and Advanced Topics in Computer Networking, Practical Course Networking Lab, and lecture Computer Networks.

- Summer semester 2009: Seminar Advanced Topics in Mobile Communications, Seminar on Internet Technologies; Practical Course Networking Lab.
- Winter semester 2009/10: seminars Internet Technologies and Advanced Topics in Computer Networking, Practical Course Networking Lab, and lecture Computer Networks.
- Summer semester 2009: Seminar Advanced Topics in Mobile Communications, Seminar on Internet Technologies; Practical Course Networking Lab (based on Prof. Jorg Liebeherr and Prof. Magda El Zarki's book "Mastering Networks: An Internet Lab Manual).
- Winter semester 2008/09: Praktikum-Advanced Networking, seminars Internet Technologies, Advanced Topics in Computer Networking, and lectures Computer Networks.
- Summer semester 2008: Praktikum-Telematik, seminars Internet Technologies - Selected Topics on Multimedia and Peer-to-Peer Networking, Advanced Topics in Mobile Communications, and lecture "Mobile Communications II".
- Winter semester 2007/08: practical course "Practical Course on Computer Networks", lecture Computer Networks and seminar Advanced Topics in Computer Networking.
- Summer semester 2007: practical course "Practical Course on Computer Networks", seminars Advanced Topics in Computer Networking and Digital Video Broadcasting (DVB).
- Winter semester 2006/07: practical course "Praktikum-Telematik", lecture Computer Networks and seminar Advanced Topics in Mobile Communications.
- Summer semester 2006: Seminar Advanced Topics in Internet Research and practical course "Praktikum-Telematik".
- Winter semester 2005/06: Seminar Advanced Topics in Mobile Communications, Lecture Computer Networks, practical course "Praktikum-Telematik".
- Summer semester 2005: Seminar Advanced Topics in Computer Networking and practical course "Praktikum-Telematik".
- Winter semester 2004/05: Lecture Computer Networks and practical course "Praktikum-Telematik".
- Summer semester 2004: Seminar Advanced Topics in Mobile Communications.
- Winter semester 2003/2004: Lecture Telematik (Computer Networks).
- Summer semester 2003: Lecture Informatik II (Computer Science-II).
- Winter semester 2002/2003: Lecture Telematik (Computer Networks).

## 6 Representative Publications

1. Sameer G Kulkarni, Wei Zhang, Jinho Hwang, Shriram Rajagopalan, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, **ACM SIGCOMM 2017** and (revised version) **IEEE/ACM Transactions on Networking**, 28(2): 639-652, 2020. (On building an efficient scheduler for software-based network functions; Google Scholar Citations: 110, the first author was my PhD student)
2. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), D2D fogging: An energy-efficient and incentive-aware task offloading framework via network-assisted D2D collaboration, **IEEE Journal on Selected Areas in Communications**, 34 (12), 3887-3901, Nov 2016 (On modeling and optimizing a complex collaborative edge computing system; Google Scholar Citations: 281, the first author was my PhD student; Clarivate "Highly Cited Paper")
3. Xu Chen, Lei Jiao, Wenzhong Li, [Xiaoming Fu](#), Efficient Multi-User Computation Offloading for Mobile-Edge Cloud Computing, **IEEE/ACM Transactions on Networking**, 24(5): 2795-2808, Oct 2016. (On modeling and optimizing a complex collaborative edge computing system; the most cited ToN paper in the past 12 years. Google Scholar Citations: 1830, the first author was Humboldt postdoc fellow under my supervision; Clarivate "Highly Cited Paper")
4. Lei Jiao, Jun Li, Wei Du, [Xiaoming Fu](#), Multi-objective data placement for multi-cloud socially aware services, **IEEE INFOCOM 2014**. (On modelling, analysis and optimization of socio-data services over distributed clouds; Google Scholar Citations: 85; the first author was my PhD student)
5. Florian Tegeler, [Xiaoming Fu](#), Giovanni Vigna, Christopher Kruegel, BotFinder: Finding Bots in Network Traffic Without Deep Packet Inspection, **ACM CoNEXT 2012** (Introducing machine learning on large-scale NetFlow data to analyse and detect the dynamic behaviors of cyber attackers; Google Scholar Citations: 221; the first author was my PhD student)
6. Jiachen Chen, Mayutan Arumathurai, Lei Jiao, [Xiaoming Fu](#), KK Ramakrishnan, COPSS: An Efficient Content Oriented Publish/Subscribe System, **IEEE/ACM ANCS 2011**. (On design, modelling and performance analysis of a content-oriented publish/subscribe system; the most cited ANCS'11 paper. Google Scholar Citations: 156; the first author was my PhD student)

## 15 Additional Representative Publications

1. Yali Yuan, Weijun Wang, Yuhan Wang, Sriprya Srikant Adhatarao, Bangbang Ren, Kai Zheng, [Xiaoming Fu](#). VSiM: Improving QoE Fairness for Video Streaming in Mobile Environments. **IEEE INFOCOM 2022** (The first author is my postdoc, acceptance rate: 19.9%)
2. Hong Huang, R. Shi, W. Zhou, X. Wang, Hai Jin, and [Xiaoming Fu](#). Temporal Heterogeneous Information

Network Embedding. The 30th International Joint Conference on Artificial Intelligence (**IJCAI 2021**) (accepted rate: 587/4204=13.9%)

3. Song Yang, Fan Li, Stojan Trajanovski, Xu Chen, Yu Wang, [Xiaoming Fu](#), Delay-Aware Virtual Network Function Placement and Routing in Edge Clouds, **IEEE Transactions on Mobile Computing**, 20(2): 445-459, Feb. 2021 (Google Scholar Citations: 24, first author was an EU CleanSky postdoc fellow I supervised).
4. Yali Yuan, Sripriya Srikant Adhatarao, Mingkai Lin, Yachao Yuan, Zheli Liu, [Xiaoming Fu](#). Ada: Adaptive deep log anomaly detector. **IEEE INFOCOM 2020**. (Google Scholar citations: 10, on deep learning-based analysis and optimization of anomaly behavior detection on computing system logs; the first author is my postdoc)
5. Sameer G Kulkarni, Guyue Liu, KK Ramakrishnan, Mayutan Arumaithurai, Timothy Wood, [Xiaoming Fu](#), Reinforce: Achieving efficient failure resiliency for network function virtualization based services, **ACM CoNEXT 2018** and (revised version) **IEEE/ACM Transactions on Networking**, 28(2): 695-708, Apr 2020. (On software-based network system failure resiliency; Google Scholar Citations: 38, the first author was my PhD student)
6. Fei Zhang, Guangming Liu, [Xiaoming Fu](#), Ramin Yahyapour, A Survey on Virtual Machine Migration: Challenges, Techniques and Open Issues, **IEEE Communications Surveys and Tutorials**, 20(2): 1206 – 1243, 2nd Quarter 2018. (A comprehensive survey on virtual machine migration; Google Scholar Citations: 154; the first author was a PhD student I co-supervised)
7. Hong Huang, Bo Zhao, Hao Zhao, Zhou Zhuang, Zhenxuan Wang, Xiaoming Yao, Xinggang Wang, Hai Jin, [Xiaoming Fu](#). A cross-platform consumer behavior analysis of large-scale mobile shopping data, **The Web Conference 2018** (On modelling, analysis and prediction of user online behaviors based on large-scale temporal-spatial data; Google Scholar Citations: 15, the first author was my PhD student)
8. Qingyuan Gong, Yang Chen, Xinlei He, Zhou Zhuang, Tianyi Wang, Hong Huang, Xin Wang, [Xiaoming Fu](#), DeepScan: Exploiting Deep Learning for Malicious Account Detection in Location-Based Social Networks, **IEEE Communications Magazine**, Feature Topic on Mobile Big Data for Urban Analytics, 56(11): 21-27, Nov 2018. (On modelling, analysis and deep learning-based prediction of online malicious behaviors based on large-scale temporal-spatial data; Google Scholar Citations: 53, the first author was my visiting PhD student)
9. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), Crowdlet: Optimal worker recruitment for self-organized mobile crowdsourcing, **IEEE INFOCOM 2016** (On modeling and optimizing a self-organized robust crowdsourcing system; Google Scholar Citations: 66, the first author was my PhD student)
10. Yang Chen, Xiao Wang, Cong Shi, Eng Keong Lua, [Xiaoming Fu](#), Beixing Deng, Xing Li, Phoenix: A Weight-based Network Coordinate System Using Matrix Factorization, **IEEE Transactions on Network and Service Management**, 8(4): 334-347, Dec 2011 (Google Scholar Citations: 64, first author was my postdoc)
11. David Koll, Jun Li, [Xiaoming Fu](#), SOUP: An Online Social Network by the People, for the People, **IFIP/ACM/USENIX Middleware 2014** (On modeling, designing and optimizing a self-organized robust social network service platform; Google Scholar Citations: 51, the first author was my PhD student)
12. Hong Huang, Jie Tang, Sen Wu, Lu Liu, [Xiaoming Fu](#), Mining triadic closure patterns in social networks, **WWW 2014** (Google Scholar Citations: 66) and (revised version) **IEEE Transactions on Knowledge and Data Engineering**, 27(12): 3374-3389, 2015 (Google Scholar Citations: 66) (On modelling, analysis and prediction of link formation in large-scale social networks; the first author was my PhD student)
13. Yuan Zhang, Hao Liu, Lei Jiao, [Xiaoming Fu](#). To offload or not to offload: An efficient code partition algorithm for mobile cloud computing. 2012 IEEE 1st International Conference on Cloud Networking (**CloudNet 2012**), pages 80-86, Nov 2012 (Google Scholar Citations: 124; the most cited CloudNet'12 paper; the first author was my PhD student)
14. Yu Cao, Mingwei Xu, [Xiaoming Fu](#), Delay-based congestion control for multipath TCP, **IEEE ICNP 2012** (On modelling, analysis and optimization of a multipath congestion control algorithm; most cited ICNP'12 paper, Google Scholar Citations: 147; the first author was a PhD student I co-supervised in Tsinghua)
15. [Xiaoming Fu](#), Henning Schulzrinne, Hannes Tschofenig, Christian Dickmann and Dieter Hogrefe, Overhead and Performance Study of the General Internet Signaling Transport (GIST) Protocol, **IEEE INFOCOM 2006** and (revised version) **IEEE/ACM Transactions on Networking**, 17(1): 158-171, Feb. 2009. (Google Scholar Citation: 34)

#### Journal Publications (Selected)

1. Kun Qiu, Jin Zhao, Xin Wang, [Xiaoming Fu](#), Stefano Secci, Efficient Recovery Path Computation for Fast Reroute in Large-scale Software Defined Networks, **IEEE Journal on Selected Areas in Communications (JSAC)**, Series on Network Softwarization & Enablers, 37(8): 1755-1768, Aug. 2019. (This work was conducted when the first author was EU MobileCloud project visitor at my group)
2. Kun Qiu, Jing Yuan, Jin Zhao, Xin Wang, Stefano Secci, [Xiaoming Fu](#), FastRule: Efficient Flow Entry Updates for TCAM-based OpenFlow Switches, **IEEE Journal on Selected Areas in Communications (JSAC)**, Series on Network Softwarization & Enablers, 37(3): 484-498, Mar. 2019. (This work was conducted when the first author was EU MobileCloud project visitor at my group)
3. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), Crowd Foraging: A QoS-oriented Self-organized Mobile Crowdsourcing Framework over Opportunistic Networks, **IEEE Journal on Selected Areas in**

- Communications (JSAC)**, Special Issue on Human-In-The-Loop Mobile Networks, 35(4): 1-15, Apr. 2017. (The first author was my PhD student)
4. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), D2D Fogging: An Energy-efficient and Incentive-aware Task Offloading Framework via Network-assisted D2D Collaboration, **IEEE Journal on Selected Areas in Communications (JSAC)**, Series on Green Communications & Networking, 34(12): 3887-3901, Nov. 2016 (The first author was my PhD student; Clarivate "Highly Cited Paper")
  5. Hao Liu, Yaoyue Zhang, Yuezhi Zhou, [Xiaoming Fu](#), Laurence Yang, Receiving Buffer Adaptation for High-speed Data Transfer, **IEEE Transactions on Computers**, 62(11): 2278-2291, Nov. 2013. (The first author was a visiting PhD student which I continued to co-supervise during my sabbatical and Changjiang visiting professorship at Tsinghua University)
  6. Bangbang Ren, Yali Yuan, Deke Guo, Guoming Tang, Weijun Wang, [Xiaoming Fu](#), Optimal Deployment of SRv6 to Enable Network Interconnection Service, **IEEE/ACM Transactions on Networking**, (08/2021, accepted; the first author is my PhD student)
  7. Zhenhua Han, Haisheng Tan, Shaofeng Jiang, Wanli Cao, Xiaoming Fu, Lan Zhang, Francis C.M. Lau, SPIN: BSP Job Scheduling with Placement-Sensitive Execution. **IEEE/ACM Transactions on Networking**, 29(5): 2267-2280, Oct 2021
  8. Sameer G Kulkarni, Guyue Liu, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), REINFORCE: Achieving Efficient Failure Resiliency for Network Function Virtualization based Services, **IEEE/ACM Transactions on Networking**, 28(2): 695-708, 2020 (The first author was my PhD student)
  9. Sameer G Kulkarni, Wei Zhang, Jinho Hwang, Shriram Rajagopalan, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, **IEEE/ACM Transactions on Networking**, 28(2): 639-652, 2020. (The first author was my PhD student)
  10. Xu Chen, Lei Jiao, Wenzhong Li, [Xiaoming Fu](#), Efficient Multi-User Computation Offloading for Mobile-Edge Cloud Computing, **IEEE/ACM Transactions on Networking**, 24(5): 2795-2808, Oct 2016 (The first author was a Humboldt postdoc fellow at my group; Clarivate "Highly Cited Paper")
  11. Lei Jiao, Jun Li, Tianyin Xu, Wei Du, [Xiaoming Fu](#), Optimizing Cost for Online Social Networks on Geo-Distributed Clouds, **IEEE/ACM Transactions on Networking**, 24(1): 99-112, Jan. 2016. 2016 (The first author was my PhD student)
  12. Wei Du, Yongjun Liao, Narisu Tao, Pierre Geurts, [Xiaoming Fu](#), Guy Leduc, Rating Network Paths for Locality-Aware Overlay Construction and Routing, **IEEE/ACM Transactions on Networking**, 23(5): 1661-1673, Oct 2015. (The first author was my postdoc)
  13. Dan Li, Hongze Zhao, Mingwei Xu, [Xiaoming Fu](#), Revisiting the Design of Mega Data Centers: Considering Heterogeneity among Containers, **IEEE/ACM Transactions on Networking**, 22(3): 1503-1515, Oct. 2013. (This work was conducted during my sabbatical at Tsinghua University)
  14. [Xiaoming Fu](#), Henning Schulzrinne, Hannes Tschofenig, Christian Dickmann and Dieter Hogrefe, Overhead and Performance Study of the General Internet Signaling Transport (GIST) Protocol, **IEEE/ACM Transactions on Networking**, 17(1): 158-171, Feb. 2009. (Google Scholar Citation: 34)
  15. Song Yang, Fan Li, Stojan Trajanovski, Xu Chen, Yu Wang, [Xiaoming Fu](#), Delay-Aware Virtual Network Function Placement and Routing in Edge Clouds, **IEEE Transactions on Mobile Computing**, 2019, DOI: 10.1109/TMC.2019.2942306, 20(2): 445-459, Feb 2021 (The first author was a postdoc within the EU CleanSky project under my supervision)
  16. Weijun Wang, Haipeng Dai, Chao Dong, Fu Xiao, Jiaqi Zheng, Xiao Cheng, Guihai Chen, [Xiaoming Fu](#), Deployment of Unmanned Aerial Vehicles for Anisotropic Monitoring Tasks, **IEEE Transactions on Mobile Computing**, 2020 (early access, DOI: 10.1109/TMC.2020.3012791, the first author is my PhD student)
  17. Yali Yuan, Chenchen Liang, Xu Chen, Tar Baker, [Xiaoming Fu](#), Adaptive Fuzzy Game-based Energy Efficient Localization in 3D Underwater Sensor Networks, **ACM Transactions on Internet Technology**, 22(2): 1-20, Oct 2021. (The first author is my postdoc)
  18. Qingyuan Gong, Yang Chen, Xinlei He, Yu Xiao, Pan Hui, Xin Wang, [Xiaoming Fu](#), Cross-Site Prediction on Social Influence for Cold-Start Users in Online Social Networks, **ACM Transactions on Web**, 15(2): No. 6, 1-23, DOI: 10.1145/3409108, May 2021 (The first author was a visiting PhD student at my group)
  19. Osamah Barakat, David Koll, [Xiaoming Fu](#), Gavel: A Fast and Easy-to-Use Plain Data Representation for Software-defined Networks, **IEEE Transactions on Network and Service Management**. 16(2): 606-617, June 2019 (The first author was my PhD student)
  20. Yang Chen, Xiao Wang, Cong Shi, Eng Keong Lua, [Xiaoming Fu](#), Beixing Deng, Xing Li, Phoenix: A Weight-based Network Coordinate System Using Matrix Factorization, **IEEE Transactions on Network and Service Management**, 8(4): 334-347, Dec 2011. (First author was my postdoc)
  21. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), Content Retrieval at the Edge: A Social-aware and Named Data Cooperative Framework, **IEEE Transactions on Emerging Topics in Computing**, 7(1): 135-148, Jan-Mar 2019. (First author was my PhD student)
  22. Hong Huang, Jie Tang, Lu Liu, JarDer Luo, [Xiaoming Fu](#), Triadic Closure Pattern Analysis and Prediction in Social Networks, **IEEE Transactions on Knowledge and Data Engineering**, 27(12): 3374-3389, Dec 2015. (The first author was my PhD student)
  23. Hong Huang, Yuxiao Dong, Jie Tang, Hongxia Yang, Nitesh V. Chawla, [Xiaoming Fu](#), Will Triadic Closure

- Strengthen Ties in Social Networks? **ACM Transactions on Knowledge Discovery from Data**, 12(3), Article No. 30, Jan. 2018. (The first author was my PhD student)
24. Song Yang, Fan Li, Ramin Yahyapour, [Xiaoming Fu](#), Delay-Sensitive and Availability-Aware Virtual Network Function Scheduling for NFV. **IEEE Transactions on Services Computing**, DOI: 10.1109/TSC.2019.2927339, July 2019. (The first author was a postdoc within the EU CleanSky project under my supervision)
  25. Yang Chen, Shining Wu, Jun Li, [Xiaoming Fu](#), NCSHield: Protecting Decentralized, Matrix Factorization-Based Network Coordinate Systems, **IEEE Transactions on Services Computing**, 10(2): 244-257, Mar.-Apr. 2017. (The first author was a postdoc at my group)
  26. Enhuan Dong, [X. Fu](#), M. Xu, and Y. Yang, "Low-Cost Datacenter Load Balancing with Multipath Transport and Top-of-Rack Switches", **IEEE Transactions on Parallel and Distributed Systems**, 31(10): 2232–2247, 2020. (The first author was my PhD student)
  27. Song Yang, Philipp Wieder, Ramin Yahyapour, Stojan Trajanovski, [Xiaoming Fu](#), Reliable Virtual Machine Placement and Routing in Clouds, **IEEE Transactions on Parallel and Distributed Systems**, 28(10): 2965-2978, Oct. 2017. (The first author was a postdoc within the EU CleanSky project under my supervision)
  28. Wenzhong Li, Yuefei Hu, [Xiaoming Fu](#), Sanglu Lu, Daoxu Chen, Cooperative Positioning and Tracking in Disruption Tolerant Networks, **IEEE Transactions on Parallel and Distributed Systems**, 26(2): 382-391, Feb 2015. (This work was conducted when the first author was my Humboldt postdoc fellow at my group)
  29. Qi Li, Xinwen Zhang, Qingji Zheng, Ravi Sandhu, [Xiaoming Fu](#), LIVE: Lightweight Integrity Verification and Content Access Control for Named Data Networking, **IEEE Transactions on Information Forensics and Security**, 10(2): 308-320, Feb 2015. (The first author was a research visitor at my group)
  30. Xinlei He, Qingyuan Gong, Yang Chen, Yang Zhang, Xin Wang, [Xiaoming Fu](#), DatingSec: Detecting Malicious Accounts in Dating Apps Using a Content-Based Attention Network, **IEEE Transactions on Dependable and Secure Computing**, DOI: 10.1109/TDSC.2021.3068307, early access. (The first author was a visiting student at my group)
  31. Yali Yuan, Robert Tasik, Sripriya Adhatarao, Yachao Yuan, Zheli Liu, [Xiaoming Fu](#), RACE: Reinforced Cooperative Autonomous Vehicle Collision Avoidance, **IEEE Transactions on Vehicular Technology**, Special Issue on Connected and Autonomous Vehicles: Technologies, Methodologies, and Applications, (early access), DOI: 10.1109/TVT.2020.2974133. (The first author is my postdoc)
  32. Shuai Yu, Rami Langar, [Xiaoming Fu](#), Li Wang, Zhu Han, Computation Offloading with Data Caching Enhancement for Mobile Edge Computing, **IEEE Transactions on Vehicular Technology**, 67(11): 11098-11112, Nov. 2018. (The first author was a PhD student at UMPC I co-supervised during my sabbatical at UPMC)
  33. Xu Chen, Wenzhong Li, Sanglu Lu, Zhi Zhou, [Xiaoming Fu](#), Efficient Resource Allocation for On-Demand Mobile-Edge Cloud Computing, **IEEE Transactions on Vehicular Technology**, 67(9): 8769-8780, Sept 2018. (The first author was a Humboldt postdoc fellow at my group)
  34. Konglin Zhu, Wenzhong Li, [Xiaoming Fu](#), SMART: A Social and Mobile Aware Routing Strategy for Disruption Tolerant Networks, **IEEE Transactions on Vehicular Technology**, 63(7): 3423-3434, Sept. 2014. (The first author was my PhD student)
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#### Peer-Reviewed Conference Papers (Selected)

1. Yali Yuan, Weijun Wang, Yuhan Wang, Sripriya Srikant Adhatarao, Bangbang Ren, Kai Zheng, [Xiaoming Fu](#). VSiM: Improving QoE Fairness for Video Streaming in Mobile Environments. **IEEE INFOCOM 2022**
2. Huang, H., R. Shi, W. Zhou, X. Wang, H. Jin, and [X. Fu](#). Temporal Heterogeneous Information Network

- Embedding. The 30th International Joint Conference on Artificial Intelligence (**IJCAI 2021**) (accepted rate: 587/4204=13.9%, the first author was my former PhD student)
3. He, N., S. Yang, F. Li, S. Trajanovski, F. A. Kuipers, and X. Fu, "A-DDPG: Attention Mechanism-based Deep Reinforcement Learning for NFV", The 29th IEEE/ACM International Symposium on Quality of Service (**IWQoS 2021**) (accepted rate: 64/256=25%).
  4. Bangbang Ren, Deke Guo, Guoming Tang, Weijun Wang, Lailong Luo and Xiaoming Fu, SRUF: Low-Latency Path Routing with SRv6 Underlay Federation in Wide Area Network, **IEEE ICDCS 2021** (top conference in distributed systems, acceptance rate: 19.8%; first author is my PhD student)
  5. Yali Yuan, Sripriya Srikant Adhatarao, Mingkai Lin, Yachao Yuan, Zheli Liu, Xiaoming Fu, ADA: Adaptive Deep Log Anomaly Detector, **IEEE INFOCOM 2020**, July 2020. (Top conference on computer communications, acceptance rate: 19.8%; first author is my postdoc)
  6. Zhenhua Han, Haisheng Tan, Shaofeng Jiang, Xiaoming Fu, Wanli Cao, Francis C.M. Lau, Scheduling Placement-Sensitive BSP Jobs with Inaccurate Execution Time Estimation, **IEEE INFOCOM 2020**, July 2020. (Top conference on computer communications, acceptance rate: 19.8%)
  7. Osamah Barakat, P. Luigi Ventre, S. Salsano, Xiaoming Fu, Busoni: Policy Composition and Northbound Interface for IPv6 Segment Routing Networks, **IEEE International Conference on Network Protocols (ICNP 2019)**, Chicago, IL, USA, Oct 2019. (Top conference on network protocols, acceptance rate: 19%, first author was my PhD student)
  8. Prasad, A. S., M. Arumathurai, D. Koll, Y. Jiang, and X. Fu, "OFM: An Online Fisher Market for Cloud Computing", **IEEE INFOCOM 2019**, Paris, France, April 2019. (Top conference on computer communications, acceptance rate: 19.7%, first author was my PhD student)
  9. Sameer G Kulkarni, Guyue Liu, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, Xiaoming Fu, REINFORCE: Achieving Efficient Failure Resiliency for Network Function Virtualization based Services, **ACM CoNEXT 2018**, Crete, Greece, Dec 2018. (Top conference on emerging networking technologies, acceptance rate: 17%, Google Scholar Citations: 22, first author was my PhD student)
  10. Enhuan Dong, Xiaoming Fu, Mingwei Xu and Yuan Yang, DCMPTCP: Host-based Load Balancing for Datacenters, 38th IEEE International Conference on Distributed Computing Systems (**ICDCS 2018**), Vienna, Austria, July 2018. (Top conference on distributed systems, acceptance rate: 20%, Google Scholar Citations: 7, first author was my PhD student)
  11. Kun Qiu, Jing Yuan, Jin Zhao, Xin Wang, Stefano Secci and Xiaoming Fu, Fast Lookup Is Not Enough: Towards Efficient and Scalable Flow Entry Updates for TCAM-based OpenFlow Switches, 38th IEEE International Conference on Distributed Computing Systems (**ICDCS 2018**), Vienna, Austria, July 2018. (Top conference on distributed systems, acceptance rate: 20%, Google Scholar Citations: 9, first author was visiting PhD student at my group)
  12. Tao Zhao, Hong Huang, Xiaoming Fu, Identifying Topical Opinion Leaders in Social Community Question Answering, 23rd International Conference on Database Systems for Advanced Applications (**DASFAA 2018**), Gold Coast, Australia, May 2018. (Well-known conference on database, data mining and applications, acceptance rate: 23%, first author was my PhD student)
  13. Qian Zhou, Yang Chen, Chuanhao Ma, Fei Li, Yu Xiao, Xin Wang and Xiaoming Fu, Measurement and Analysis of the Reviews in Airbnb, **IFIP Networking 2018**, Zurich, Switzerland, IEEE Press, May 2018. (Well-known conference on computer networking, acceptance rate: 24%, first author was a visiting PhD student at my group)
  14. Hong Huang, Bo Zhao, Hao Zhao, Zhou Zhuang, Zhenxuan Wang, Xiaoming Yao, Xinggang Wang, Hai Jin and Xiaoming Fu, A Cross-Platform Consumer Behavior Analysis of Large-Scale Mobile Shopping Data, The Web Conference (**WWW 2018**), Lyon, France, ACM, April 2018. (Top conference on web science and applications, acceptance rate: 15%, first author was my PhD student)
  15. Sameer G Kulkarni, Wei Zhang, Jinho Hwang, Shriram Rajagopalan, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, Xiaoming Fu, NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, **ACM SIGCOMM 2017**. (Top conference on data communications, acceptance rate: 14.4%, first author was my PhD student)
  16. Fengli Xu, Zhen Tu, Yong Li, Pengyu Zhang, Xiaoming Fu, Depeng Jin, Trajectory Recovery from Ash: User Privacy Is NOT Preserved in Aggregated Mobility Data, **WWW 2017**. (Top conference on web science and applications, acceptance rate: 17%, first author was a visiting PhD student at my group)
  17. Yang Chen, Cong Ding, Jiyao Hu, Ruichuan Chen, Pan Hui, Xiaoming Fu, Building and Analyzing a Global Co-Authorship Network Using Google Scholar Data, **WWW 2017 Companion - 4th WWW Workshop on Big Scholarly Data (BigScholar 2017)**. (The first author was my postdoc then visiting scholar)
  18. Prasad S Abhinandan, David Koll, Jesus Omana Iglesias, Jordi Arjona Aroca, Volker Hilt and Xiaoming Fu, Optimal Resource Configuration of Complex Services in the Cloud, 17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (**IEEE/ACM CCGrid 2017**). (Top conference on grid and cloud computing, acceptance rate: 29%, first author was my PhD student)
  19. David Koll, Martin Schwarzmaier, Jun Li, Xiang-Yang Li, Xiaoming Fu, Thank you for being a friend: an attacker view on online-social-network-based Sybil defenses, 9th IEEE/ACM International Workshop on Hot Topics in Planet-Scale Mobile Computing and Online Social Networking (**HotPOST'17**), in conjunction with 37th IEEE International Conference on Distributed Computing Systems (**ICDCS 2017**) (Best paper award)



20. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), Crowdlet: Optimal Worker Recruitment for Self-Organized Mobile Crowdsourcing, IEEE **INFOCOM 2016**. (Top conference on computer communications, acceptance rate: 18.2%, first author was my PhD student)
21. Chao Wu, Xu Chen, Yuezhi Zhou, Ningyuan Lee, [Xiaoming Fu](#), Yaoxue Zhang, Spice: Socially-Driven Learning-Based Mobile Media Prefetching, IEEE **INFOCOM 2016**. (Top conference on computer communications, acceptance rate: 18.2%, first author was my co-supervised PhD student and visiting student at my group)
22. Narisu Tao, Xu Chen, [Xiaoming Fu](#), AS Path Inference: From Complex Network Perspective, **IFIP Networking 2015**. (Well-known conference on computer networking, acceptance rate: 23.8%, first author was my PhD student)
23. David Koll, Jun Li, [Xiaoming Fu](#), SOUP: An Online Social Network by the People, for the People, 15<sup>th</sup> ACM/IFIP/USENIX International Middleware Conference (**Middleware 2014**), (Top conference on middleware technologies, acceptance rate: 18.7%, first author was my PhD student)
24. Mayutan Arumaithurai, Jiachen Chen, Edo Monticelli, [Xiaoming Fu](#), K. K. Ramakrishnan, Exploiting ICN for Flexible Management of Software-Defined Networks, 1<sup>st</sup> ACM Conference on Information-Centric Networking (**ICN 2014**) (Best paper award) (Top conference on information-centric networking, acceptance rate: 17%, first author was my postdoc)
25. Hong Huang, Jie Tang, Sen Wu, Lu Liu, [Xiaoming Fu](#), Mining Triadic Closure Patterns in Social Networks, 23<sup>rd</sup> International World Wide Web Conference (**WWW 2014**) (Top conference on web science and applications, acceptance rate: 13%, first author was my PhD student)
26. Lei Jiao, Jun Li, Wei Du, [Xiaoming Fu](#), Multi-Objective Data Placement for Multi-Cloud Socially Aware Services, IEEE **INFOCOM 2014**. (Top conference on computer communications, acceptance rate: 19.4%, first author was my PhD student)
27. Hao Liu, Yaoxue Zhang, Yuezhi Zhou, Di Zhang, [Xiaoming Fu](#), K. K. Ramakrishnan, Mining Checkins from Location-sharing Services for Client-independent IP Geolocation, IEEE **INFOCOM 2014**. (Top conference on computer communications, acceptance rate: 19.4%, first author was my co-supervised PhD student at Tsinghua and visiting scholar at my group)
28. David Koll, Jun Li, Joshua Stein, [Xiaoming Fu](#), On the State of OSN-based Sybil Defenses, **IFIP Networking 2014**. (Well-known conference on computer networking, acceptance rate: 25%, first author was my PhD student)
29. Yu Cao, Mingwei Xu, [Xiaoming Fu](#), Enhuan Dong, Explicit Multipath Congestion Control for Data Center Networks, 9<sup>th</sup> ACM Int'l Conf. on emerging Networking EXperiments and Technologies (**CoNEXT 2013**). (Top conference on emerging networking technologies, acceptance rate: 20%, first author was my co-supervised PhD student at Tsinghua)
30. Lei Jiao, Jun Li, Xiaoming Fu, Optimizing data center traffic of online social networks, 19th IEEE Workshop on Local & Metropolitan Area Networks (**LANMAN 2013**) (Best paper award, the first author was my PhD student)
31. Florian Tegeler, [Xiaoming Fu](#), Giovanni Vigna and Christopher Krügel, BotFinder: Finding Bots in Network Traffic without Deep Packet Inspection, ACM **CoNEXT 2012**. (Top conference on emerging networking technologies, acceptance rate: 17.5%, Google citations=209, first author was my PhD student)
32. Yu Cao, Mingwei Xu, [Xiaoming Fu](#), Delay-based Congestion Control for Multipath TCP, IEEE **ICNP 2012**. (Top conference on network protocols, acceptance rate: 22.9%, the first author was my co-supervised PhD student at Tsinghua)
33. Lei Jiao, Jun Li, Tianyin Xu, [Xiaoming Fu](#), Cost Optimization for Online Social Networks on Geo-Distributed Clouds, IEEE International Conference on Network Protocols (**ICNP 2012**). (Top conference on network protocols, acceptance rate: 22.9%, first author was my PhD student)
34. Jiachen Chen, Mayutan Arumaithurai, [Xiaoming Fu](#), and K. K. Ramakrishnan, G-COPSS: A Content Centric Communication Infrastructure for Gaming, IEEE **ICDCS 2012**. (Top conference on distributed systems, acceptance rate: 13%, first author was my PhD student)
35. Yuan Zhang, Hao Liu, Lei Jiao, [Xiaoming Fu](#), To offload or not to offload: An efficient code partition algorithm for mobile cloud computing, IEEE 1st International Conference on Cloud Networking (**CLOUDNET 2012**) (This conference was established as part of IEEE Cloud Computing Initiative, acceptance rate: 39%. This was the most cited paper in CloudNet'12; the first author was my PhD student).
36. Cong Ding, Yang Chen, Tianyin Xu, [Xiaoming Fu](#), CloudGPS: A Scalable and ISP-Friendly Server Selection Scheme in Cloud Computing Environments, IEEE/ACM **IWQoS 2012**. (Top conference on quality of service, acceptance rate: 21.8%, Google Scholar Citations: 36, first author was my master student)
37. Tianyin Xu, Yang Chen, Lei Jiao, Ben Y. Zhao, Pan Hui, [Xiaoming Fu](#), Scaling Microblogging Services with Divergent Traffic Demands, ACM/IFIP/USENIX **Middleware 2011**. (Top conference on middleware technologies, acceptance rate: 19%, first author was a research fellow at my group)
38. Jiachen Chen, Mayutan Arumaithurai, Lei Jiao, [Xiaoming Fu](#), K. K. Ramakrishnan, COPSS: An Efficient Content Oriented Publish/Subscribe System, ACM/IEEE **ANCS 2011**. (Premium conference on network architecture and systems; most cited paper in ANCS'11; first author was my PhD student)

39. Dan Li, Mingwei Xu, Hongze Zhao, Xiaoming Fu, Building Mega Data Centers from Heterogeneous Containers, IEEE **ICNP 2011**. (Top conference on network protocols, acceptance rate: 16.4%, this work was conducted during my sabbatical at Tsinghua University)
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41. Tianyin Xu, Baoliu Ye, Qinhui Wang, Wenzhong Li, Sanglu Lu, Xiaoming Fu, APEX: A Personalization Framework to Improve Quality of Experience for DVD-like Functions in P2P VoD Applications, IEEE **IWQoS 2010**. (Top conference on quality of service, acceptance rate: 21.8%, first author was a research fellow at my group)
42. Jianhua He, Xiaoming Fu and Zuoying Tang, End-to-End Versus Hop-by-Hop Soft State Refresh for Multi-hop Signaling System, IEEE **ICNP 2009**. (Top conference on network protocols, acceptance rate: 18%, first author was a research visitor at my group)
43. Xiaoming Fu, and Jon Crowcroft, GONE: an Infrastructure Overlay for Resilient, DoS-Limiting Networking, ACM **NOSSDAV 2006**. (Well-known conference on networked multimedia, acceptance rate: 31%, this work was conducted during my research visit at University of Cambridge)
44. Xiaoming Fu, Henning Schulzrinne, Hannes Tschofenig, Christian Dickmann and Dieter Hogrefe. Overhead and Performance Study of the General Internet Signaling Transport (GIST) Protocol, IEEE **INFOCOM 2006**. (Top conference on computer communications, acceptance rate: 17.8%)
45. Xiaoming Fu, Dieter Hogrefe and Sebastian Willert. Implementation and Evaluation of the Cross-Application Signaling Protocol (CASP), IEEE **ICNP 2004**. (Top conference on network protocols, acceptance rate: 15%)

**Full Publication List** ([Google Scholar Citations: 7518](#), [H-index=42](#))

#### **Edited Conference Proceedings and Journal Special Issues**

1. James Evans, Xiaoming Fu, Jar-Der Luo, Inaugural Message from Editors-in-Chief, Journal of Social Computing, IEEE, 1:i-iv, Sept 2020.
2. Raouf Boutaba, Guy Pujolle, Xiaoming Fu, Silvia Giordano, Christian Jacquenet (eds.), Proceedings of IFIP Networking 2020, June 2020.
3. Xiaoming Fu, Hong Huang, Gareth Tyson, Lu Zheng, and Gang Wang, Social Computing and Big Data Applications, Guest Editorial, World Wide Web journal, Springer Verlag, Nov 2019.
4. Xiaoming Fu, Dirk Kutscher, Satyajayant Misra, Ruidong Li, Information-Centric Networking Security, Guest Editorial, IEEE Communications Magazine, 56(11): 60-61, Nov. 2018
5. Xiaoming Fu, Andrea Passarella, Daniele Quercia, Alessandra Sala, Thorsten Strufe. Special Issue on "Online Social Networks". Computer Communications, Elsevier, 73: 163-166, 2016.
6. Jun Guo, Sung Ho Cho, Xiaoming Fu, Nirwan Ansari, Hong Ji. Special Issue on "Mobile Internet: content, security and terminal". International Journal of Communication Systems, Wiley & Sons, 29(14), 2016.
7. Xiaoming Fu, Stefano Secci, Dijiang Huang, Rittwik Jana. Feature Topic on "Mobile cloud computing", IEEE Communications Magazine, 53(3), 2015.
8. Xiaoming Fu, Yang Chen, Guy Leduc, Laurent Mathy. Special Issue on "Measurement-based optimization of P2P networking and applications". Computer Networks, Elsevier, 56(3), 2012.
9. Xiaoming Fu, Martin Stiemerling, Henning Schulzrinne, Special Issue on "Implications and Control of Middleboxes in the Internet", IEEE Network, Sept/Oct 2008.
10. Xiaoming Fu, Michael Welzl, Volker Hilt, Dieter Hogrefe, David Koll, Ruichuan Chen (eds), Proc. of 20th IEEE/ACM/GI/ITG Conference on Networked Systems (NetSys'17), Göttingen, Germany, Mar 13-16, 2017
11. Tohru Asami, Xiaoming Fu, Jeff Burke, Dario Rossi, Ioannis Psaras. Proc. of 3rd ACM Conference on Information-Centric Networking (ICN'16), Kyoto, Japan, Sept 26-28, 2016. ISBN 978-1-4503-4467-8
12. Jun Bi, Sonia Fahmy, Xiaoming Fu, Keisuke Uehara, Guang Cheng, Serge Fdida (eds.), ACM Conference on Future Internet (CFI 2016), Nanjing, China, June 15-17, 2016. ISBN 978-1-4503-4181-3
13. Xiaoming Fu, Puneet Sharma, Dijiang Huang, Deep Medhi (eds.), Proc. IEEE 2nd International Conference on Cloud Networking (CloudNet'13), San Francisco, USA, Nov. 11-13, 2013. ISBN 978-1-4799-0566-9
14. Xiaoming Fu, Volker Hilt, Tilman Wolf, Lixia Zhang, and Zhi-Li Zhang (eds.). Proc. of 21<sup>st</sup> IEEE International Conference on Network Protocols (ICNP'13), Göttingen, Oct. 7-10, 2013. ISBN 978-1-4799-1270-4
15. Xiaoming Fu, Peter Gloor, and Jie Tang (eds.). Proc. of 1st ACM International Workshop on Hot Topics on Interdisciplinary Social Networks Research (HotSocial 2012), ACM KDD 2012, Beijing, China, Aug. 2012. ISBN 978-1-4503-1549-4
16. Xiaoming Fu, Rittwik Jana, and K. K. Ramakrishnan (eds.). Proc. of 7th ACM Workshop on Mobility in the Evolving Internet Architecture (MobiArch'12), Istanbul, Turkey, Aug. 2012. ISBN 978-1-4503-1526-5
17. Xiaoming Fu and Pan Hui (eds.). Proceedings of 1st ACM International Workshop on Hot Topics of Planet-Scale Mobility Measurements (HotPlanet'09), Krakow, Poland, June 2009. ISBN 978-1-60558-689-2
18. Xiaoming Fu, Katherine Guo, Sue Moon, Ryuji Wakikawa (eds.), Proc. of 2<sup>nd</sup> ACM Workshop on Mobility in the Evolving Internet Architecture (MobiArch'06), SIGCOMM 2007, Kyoto, Japan, Aug. 2007. ISBN 978-1-59593-784-8

- Xiaoming Fu, Katherine Guo and Jon Crowcroft (eds.). Proc. of 1st ACM/IEEE Workshop on Mobility in the Evolving Internet Architecture (MobiArch'06), San Francisco, CA, Dec 2006. ISBN 1-59593-566-5

#### Other Publications (Selected)

- Xiaoming Fu, Jar-Der Luo, Margarete Boos (eds.), Social Network Analysis: Interdisciplinary Approaches and Case Studies, CRC Press, Taylor & Francis Group, Mar. 2017. ISBN 9781498736640.
- Xiaoming Fu, From Resource Reservation to Extensible IP Signaling, Cuvillier Verlag, Dec. 2013, ISBN 9783954046010.
- Kadangode K. Ramakrishnan, Mayutan Arumathurai, Xiaoming Fu, Network-Friendly Transmission Control Protocol (TCP) Methods, Apparatus and Articles of Manufacture, granted US patent, Publication No. US8824281 B2, Sept 2014.
- Xiaoming Fu, Niklas Neumann, Jun Lei, Gong Zhang, Inter-domain handover mechanisms between network-based localized network mobility domains, Issued patent, No. WO/2010/000090, Jan. 2010.
- Changpeng Fan, Andreas Festag, Xiaoming Fu, Cornelia Kappler, Holger Karl, Mirko Schramm, Gunter Schafer, Method for Carrying Out a QoS-oriented Handoff Between a First Mobile Node and a Second IP-based, Especially, Mobile IPv6-based, Communication Path, Between a Mobile Node (MN) and a Corresponding Node (CN), granted patent, No. DE10196717D/EP1405540B1/US2004024041/WO03009624, 2004.
- Takako Sanda, Xiaoming Fu, Seong-Ho Jeong, Jukka Manner, Hannes Tschofenig, NSIS Protocol Operation in Mobile Environments, Internet Engineering Task Force, **RFC 5980**, Next Steps in Signaling (NSIS) Working Group, ISSN: 2070-1721, Mar. 2011.
- Xiaoming Fu, Christian Dickmann, Jon Crowcroft, General Internet Signaling Transport (GIST) over Stream Control Transmission Protocol (SCTP) and Datagram Transport Layer Security (DTLS), **RFC 6084**, Internet Engineering Task Force, Next Steps in Signaling (NSIS) Working Group, Jan. 2011.
- Tseno Tsenov, Hannes Tschofenig, Xiaoming Fu (ed.), Cedric Aoun, and Elwyn Davies, General Internet Signaling Transport (GIST) State Machine, Internet Engineering Task Force, **RFC 5972**, Next Steps in Signaling (NSIS) Working Group, Oct. 2010.
- Jukka Manner, Xiaoming Fu, Analysis of Existing Quality-of-Service Signaling Protocols, Internet Engineering Task Force, **RFC 4094**, Next Steps in Signaling (NSIS) Working Group, May 2005.
- Mayutan Arumathurai, Jiachen Chen, Xiaoming Fu, K. K. Ramakrishnan, Jan Seedorf, Enabling Publish/Subscribe in ICN, IETF draft (draft-jiachen-icn-pubsub-00), July 2014.
- Mayutan Arumathurai, Xiaoming Fu and K. K. Ramakrishnan, LEDBAT architecture framework consisting of pluggable components, IETF draft (draft-mayutan-ledbat-congestionarchitecture-00), Mar 2010.
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- [Start des IEEE/Tsinghua University Press Journal of Social Computing](#) News of Institute of Computer Science and News of State and University Library, University of Göttingen (Dec 16, 2020)
- [Prof. Dr. Xiaoming Fu and Prof. Dr. Ralf Steinmetz elected to Academia Europaea](#), [KuVS](#) Newsletter (Dec 2019)
- [Dr. Sameer Kulkarni received the IEEE TCSC Outstanding PhD Dissertation Award 2019](#) (June 20, 2019)
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