

Chunyi Peng

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Education

Ph.D., University of California, Los Angeles, Computer Science, 2013,
Dissertation · *Cellular Network for Mobile Devices and Applications: Infrastructure Limitations and Solutions*
Committee · Songwu Lu, Lixia Zhang, Mario Gerla, Yingnian Wu
M.S., University of California, Los Angeles, Computer Science, 2012
M.E., Tsinghua University, Automation, 2005
with highest distinction and honors at Tsinghua university, Best Thesis Award
B.E., Tsinghua University, Automation, 2002
with highest distinction and honors at Tsinghua university and in Beijing

Professional Experience

2017–now *Assistant Professor*, Computer Science, Purdue University
2013–2017 *Assistant Professor*, Computer Science Engineering, Ohio State University
2009–2013 *Research Assistant & Teaching Assistant & Fellowship*, Computer Science, UCLA
2013 *Research Intern*, Microsoft Research Redmond (3 months)
2012 *Research Intern*, IBM TJ Watson Research Center (3 months)
2011 *Research Intern*, IBM TJ Watson Research Center (3 months)
2005–2009 *Associate/Assistant Researcher*, Microsoft Research Asia
2005–2005 *Engineer* on 3G TD-SCDMA development, T3G Ltd., Beijing, China (11 months)

Awards and Honors

NSF CAREER Award · 2018
Best Community Paper Award · ACM MobiCom'17 · 2017
“Best of the Session” Presentation · IEEE INFOCOM'17 · 2017
Best Community Paper Award · ACM MobiCom'16 · 2016
One of the 100 Distinguished TPC Members · IEEE INFOCOM · 2016
Finalist for Qualcomm Innovation Fellowship (Co-mentor) · 2015
N2Women Fellowship · 2015.
Northrup-Grumman Outstanding Graduate Student Award · UCLA · 2013.
Chinese Government Award for Outstanding Self-Financed Students Abroad · 2012.
IBM Ph.D. Fellowship Award · 2012.
UCLA Chancellor's Prize · 2009, 2010, 2011

UCLA Fellowship · 2009, 2010
Best Demo Award · ACM MobiSys'09 · 2009
Best Demo Award · ACM Mobisys'07 · 2007
Best Demo Award · ACM SenSys'07 · 2007
Best Master Thesis Award · Tsinghua University · 2005
Highest Honors and distinction · Tsinghua University · 2005
Best Undergraduate Student Award of Beijing, China · 2002
Highest Honors and distinction · Tsinghua University · 2002
Excellent Student Scholarship · Tsinghua University (top 1%) · 1999, 2000, 2001

Sponsored Research

Reported amounts reflect funds 100% under my responsibility. Mine: \$1,588,946 (Total: \$2,584,399).

NSF CAREER *Amplifying Intelligence in Mobile Networked Systems*

Agency · NSF
Amount · \$554,995
Dates · 07/01/2018 – 06/30/2023
Role · Principal Investigator

NeTS-Small *Configuration Management for Mobility Support in Cellular Networks*

Agency · NSF
Amount · \$230,212 (total: \$459,990)
Dates · 10/01/2015 – 09/30/2018
Role · Lead Principal Investigator

SaTC-Small *Cellular Network Services in Peril: A Perspective on Control-Plane and Data-Plane Design*

Agency · NSF
Amount · \$238,437 (total: \$499,378)
Dates · 09/01/2015 – 08/31/2018
Role · Principal Investigator

SaTC-Small: *Secure Data Charging Architecture for Mobile Devices in 3G/4G Cellular Networks: Vulnerabilities and Solutions*

Agency · NSF
Amount · \$245,581 (total: \$497,948)
Dates · 07/01/2014 – 06/30/2018
Role · Lead Principal Investigator

NeTS-Small: *Identifying Design and Operational Loopholes in Cellular Network Protocols*

Agency · NSF
Amount · \$245,581 (total: \$497,948)
Dates · 10/01/2014 – 09/30/2018
Role · Principal Investigator

Gifts from Industry

Gift from *Adobe Systems, Inc* · \$15,000 · 01/2018-03/2018
Gift from *Adobe Systems, Inc* · \$27,000 · 11/2015-08/2016
Gift from *Adobe Systems, Inc* · \$28,750 · 12/2014-08/2015

Donation from Xilinx (two sets of Kintex-7 FPGA KC705 Evaluation Kit) · \$3,390 · 10/2014

Professional Service

Co-Chair on workshops and small meetings (fewer than 100 people)

WiNTech, ACM International Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization (co-located with MobiCom), 2017

VLCS, ACM Workshop on Visible Light Communication Systems (co-located with MobiCom), 2015

Technical Program committee

MobiCom, ACM International Conference on Mobile Computing and Networking · 2014, 2015, 2016, 2017, 2018

MobiSys, ACM International Conference on Mobile Systems, Applications, and Services · 2014, 2015, 2017

NDSS, The Network and Distributed System Security Symposium · 2017, 2018

INFOCOM, IEEE Conference on Computer Communications · 2016, 2017

ICNP, IEEE International Conference on Network Protocols · 2015, 2016.

SECON, IEEE International Conference on Sensing, Communication and Networking · 2015, 2017, 2018

WWW, The World Wide Web Conference · 2017, 2018

HotMobile, ACM International Workshop on Mobile Computing Systems and Applications · 2016, 2017

AsiaCCS, ACM Asia Conference on Computer and Communications Security · 2018

CNS, IEEE Conference on Communication and Network Security · 2016, 2017, 2018

PAC, IEEE Symposium on Privacy-Aware Computing · 2017

ICCCN, International Conference on Computer Communication and Networks · 2017, 2018

WCNC, IEEE Wireless Communications and Networking Conference · 2017

WiNTech, ACM International Workshop on Wireless Network Testbeds, Experimental evaluation & Characterization · 2016, 2017

VLCS, ACM Workshop on Visible Light Communication Systems · 2014, 2015, 2016

All Things Cellular, ACM Workshop on All Things Cellular (previously CellNet) · 2014

MCS, ACM Workshop on Mobile Cloud Computing & Services (MCS) · 2014

S3, ACM S3 workshop on Wireless of the Students, by the Students, for the Students, 2013

ICC, IEEE International Conference on Communications · 2013, 2014

GLOBECOM, IEEE Global Communication Conference · 2012, 2013

Journal reviewing

IEEE/ACM Transactions on Networking(TON) · since 2010.

IEEE Transactions on Mobile Computing(TMC) · 2011, 2012, 2013, 2014, 2016

IEEE Pervasive Computing · 2017

IEEE Journal on Selected Areas in Communications (JSAC) · 2012, 2016

ACM Wireless Networks (WINET) · 2012
IEEE Transactions on Wireless Communications · 2012
IEEE Transactions on Parallel and Distributed Systems (TPDS) · 2012
IEEE Network Magazine · 2012
IEEE Transactions on Services Computing · 2012
EURASIP Journal on Wireless Communications and Networking Research · 2012
International Journal of Distributed Sensor Networks · 2010

External Reviewer

ACM Conference for Human-Computer Interaction (CHI) · 2016
ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp) · 2014, 2016
IEEE Conference on Computer Communications (INFOCOM) · 2013.
Conference on Indoor Positioning and Indoor Navigation · 2010.

Proposal reviewing

NSF · 2015, 2016, 2017

Conference Organization Committee Member

Poster/Demo Co-Chair · ACM Workshop on Mobile Computing Systems and Apps (HotMobile) · 2018
Publicity Co-Chair · ACM Conference on Mobile Computing and Networking (MobiCom) · 2017
Poster/Demo Co-Chair · ACM Conference on Mobile Systems, Applications, and Services (Mobisys) · 2017
Web chair · IEEE Conference on Mobile Ad hoc and Sensor Systems (MASS) · 2017
Publicity Co-Chair · International Conference on Mobile Ad-hoc and Sensor Networks (MSN) · 2016
Poster/Demo Co-Chair · ACM Workshop on Visible Light Communication Systems (VLCS) · 2014

Other

Mentor Co-Chair on N2Women Board · 2017 - 2018
Mentors for N2Women Fellowship · 2016

Department at Purdue

Graduate Admissions Committee · 2017-present

Department at OSU and Columbus, OH

Faculty Search Committee · 2016-2017
Graduate Studies Committee · 2015-2017
Curriculum Committee · 2016-2017
Graduate Admissions Committee · 2014-2016
Faculty Judge, Annual CSE Grad Poster Exhibition · 2014, 2016

Mentor, Columbus High I/O Event (to high-school students) · 04/2017

Teaching

CS 536 · Data Communication And Computer Networks · Spring 2018

Graduate lecture course

25 students: CS, ECE

CS 590 · Embracing 5G and Beyond 5G · Fall 2017

Graduate lecture course (research seminar)

12 students: CS, ECE

CSE3461/5461 · Computer Networking and Internet Technologies · Spring 2017 · OSU

Undergraduate (mainly) and graduate lecture course

80 students: CSE, ECE, Engineering

CSE3461/5461 · Computer Networking and Internet Technologies · Fall 2015 · OSU

Undergraduate (mainly) and graduate lecture course

41 students: CSE, ECE, Engineering

CSE5469 · Advanced Topics on Cellular Networks · Fall 2015 · OSU

Graduate lecture course (research seminar)

18 students: CSE, ECE

CSE3461/5461 · Computer Networking and Internet Technologies · Fall 2014 · OSU

Undergraduate (mainly) and graduate lecture course

80 students: CSE, ECE, Engineering

CSE3461/5461 · Computer Networking and Internet Technologies · Spring 2014 · OSU

Undergraduate (mainly) and graduate lecture course

42 students: CSE, ECE, Engineering

CSE5469 · Advanced Topics on Mobile Networking and Systems · Spring 2014 · OSU

Graduate lecture course (research seminar)

3 students: CSE

Student Advising

Graduated Ph.D. Students

- Qiang Zhai (CSE). Graduated August 2017 (co-advised with Dong Xuan)

PhD Students

- Haotian Deng (CS) · Fall 2015 - Present
- Cheng Zhang(CSE, OSU), · Spring 2017 - Present (co-advised by Prof. Dong Xuan)
- Jiayi Meng (CS), · Fall 2017 - Present (co-advised by Prof. Charlie Hu, PhD started in Fall 2018)
- Weicheng Wang (CS) · Spring 2018 - Present (PhD started on Summer 2018)

Graduate Independent Research Projects (except current Ph.D. students)

Spring 2018

Andrew B Groenewold (PhD) Research on end-performance over 5G NFV-based core

MS Students

- Ans Fida (CS) · Fall 2017 - Present (funded by NSF NeTS Small) · Mobile networking data analytics
- Junwei Xu (MS, ECE OSU), Fall 2016 - Summer 2017 (Co-advised by Prof. Wladimiro Villarroel, terminated after my transfer) · Energy-efficient DASH video streaming

Undergraduate Students

- Si Fang (CSE OSU) · Fall 2016-Spring 2017 (terminated after my transfer) · ViViSnoop
- Gan Fang (CSE OSU) · Fall 2014 - Spring 2016 · Energy efficiency for video streaming over LTE
- Di Li (CSE OSU) · Fall 2015 · screen-to-camera communication
- Ryan Van Soelen (CSE OSU) · Fall 2015 · Psychological effects from mobile bio-sensing
- Li Zhang (CSE OSU) · 2014 Spring · Visible light communication

Visiting Students

- Jingyu Zhang · PhD student at Shanghai Jiaotong University · Fall 2014 - Spring 2016 · energy-efficient video streaming over LTE
- Jiahua Chen · MS student at Peking University · fall 2015 · SDR development for 4G LTE

Other Students

These are students I've worked with intensively who had been in my lab and/or are currently at other institutions, including Kun Jin (OSU), Xingya Zhang (OSU), Zhuoran Li (OSU), Jie Zhao (OSU), Jiaqi Xu (OSU), Xiaohu Zhao (OSU), Yuanjie Li (UCLA), Zengwen Yuan (UCLA), Qianru Li (UCLA), Zhehui Zhang (UCLA), Li Li (Tsinghua), Zhe Yang (SJTU), Anran Wang (BUPT, now at UW), Pan Hu (Wuhan, now at Stanford).

On Advisory/Dissertation/Candidacy Committee

Note: Members, not Chairs on these committees.

- Ph.D. Dissertation Examination (and Advisory Committee)
Yue Qiao · 2017, OSU (advised by Prof. Anish Arora, Prof. Kannan Srinivasan)
Wenjie Zhou · 2015, OSU (advised by Prof. Kannan Srinivasan, Prof. Prasun Sinha)
Jin He · 2015, OSU (advised by Prof. Anish Arora)
- Ph.D. Candidacy (Preliminary) Examination
Shiqing Ma · Spring 2018 (advised by Prof. Xiangyu Zhang and Prof. Dongyan Xu) Fan Yang · 2017, OSU (advised by Prof. Dong Xuan)
Jithin Jose · 2014, OSU (advised by Prof. Dhabaleswar K. (DK) Panda)

- Ph.D. Advisory Committee
 - Servio Ernesto Palacios Interiano (advised by Prof. Bharat Bhargava)
 - Siyuan Cao (advised by Prof. He Wang)
 - Akshay Jajoo (advised by Prof. Charlie Hu)
 - Sibendu Paul (advised by Prof. Charlie Hu)
- M.S Advisory Committee
 - Edgardo A. Barsallo Yi (advised by Prof. Saurabh Bagchi)
- Misc
 - Erik P. Schilling · Senior Honors Thesis Defense Committee · 2014, OSU

Publicity

Interviews

- TV interview** *regarding overcharges in our mobile data plans*, WPXI (the NBC affiliate), by Lauren Silver · Feb 2017.
- TV interview** *Over the Limit: FOX25 Investigates uncovers cell data charges as customers sleep*, Fox 25, Boston, by Eric Rasmussen and Erin Smith, · Oct 31, 2016. <http://www.fox25boston.com/news/over-the-limit-fox25-investigates-uncovers-cell-data-charges-as-customers-sleep/462197711>

News articles & Press releases

- Researchers discover new attacks amid VoLTE rollout*, TheVerge, by Russell Brandom, Oct 22, 2015, <http://www.theverge.com/2015/10/22/9594128/volte-vulnerability-attack-verizon-att-tmobile>.
- Researchers hack VoLTE, get free data*, RCRWirelessNews, by Kelly Hill , Oct 27, 2015, <http://www.rcrwireless.com/20151027/network-infrastructure/lte/researchers-volte-hack-free-data-tag6>.
- How Your Wireless Carrier Overcharges You*, MIT Technology Review, by Tom Simonite, Sep. 13, 2012, <https://www.technologyreview.com/s/429181/how-your-wireless-carrier-overcharges-you/>.
- Phone Companies Could Be Overcharging You for Data*, Market Place, by David Brancaccio, Sep 16, 2012, <http://www.marketplace.org/topics/tech/tech-report-blog/phone-companies-could-be-overcharging-you-data>.
- UCLA study documents wireless data overcharges*, Computer World, by Matt Hamblen, Sep 18 2012 http://www.computerworld.com/s/article/9231405/UCLA_study_documents_wireless_data_overcharges.
- Study: What Smartphone Users Don't Know about Their Bill*, the Fiscal Time, by Sheryl Nance Nash, Sep. 19, 2012 <http://www.thefiscaltimes.com/Articles/2012/09/19/Study-What-Smartphone-Users-Dont-Know-about-Their-Bill.aspx#DcrbPmki26shImxj.99>.
- Your carrier may be charging you for data you didn't receive*, TheVerge, by Aaron Souppouris, Sep 20, 2012, <http://www.theverge.com/2012/9/20/3361904/wireless-data-carrier-overcharging-ucla-study>.

Selected Talks and Presentations

Tutorial Presentations

- Verifying Cellular Network Operations On Your Phones: From Simulation to Practice · *IEEE Globecom'17 Tutorial*, Singapore · December 8, 2017

Invited Plenary Presentations

- Invited Talk: A Security Perspective on VoLTE: Our Untold Research Story and Lessons, · Invited by GSMA (GSM Association), Toronto, Canada · Sep 2016 · Audience: 100+ operators and vendors in GSMA conference.
- Keynote: On “Internet” of Things: An Architectural Perspective from Mobile Networks · 10th ACM International Workshop on IoT and Cloud Computing, Wuxi, China · Dec 2015.
- NSF Workshop: MobileInsight: Towards In-Device Mobile Network Intelligence · NSF EU-US Workshop on Technological Gaps and Opportunities For Realizing Open Source Based End-to-End Network Architecture, Snowbird, Utah · Oct 2017
- NSF Workshop: Protocol Verification for Cellular Networks · NSF workshop on on Mobile Community Measurement Infrastructure, Washington DC · Nov 2014

Panelist

Panel on Building a Cellular Networking Research Program · Cellular Networking Research: A Case Study, · All Things Cellular 2014, Chicago, IL USA · Aug 2014

Panel on Career Development, · ACM S3 workshop on Wireless of the Students, by the Students, for the Students · , Sep 2014

Invited Presentations

- **Dec 2017:** When Mobile Network Meets AI
 - *Tsinghua University, Beijing, China*
 - *Zhejiang University, Hanzhou, China.*
 - *Beijing University of Posts and Telecommunications, Beijing, China*
- **May 2017:** Augment Mobile Network Intelligence at “Smart” Ends, *University of California, Riverside.*
- **April 2017:** Bracing for Automated Intelligence in Mobile Networked System, *Purdue University–West Lafayette.*
- **Dec 2016:** MobileInsight: Bring Cellular Network Intelligence to Smart Mobile Ends, *Shanghai Jiaotong University, China., Shanghai, China.*
- **Dec 2016:** Harness End Intelligence at Mobile Devices in Cellular Networks, *University of Science and Technology of China, Hefei, Anhui China.*
- **Dec 2016:** Harness Device Intelligence in the Coming 5G Era, *Beijing University of Posts and Telecommunications, Beijing, China.*
- **Dec 2016:** My “Biased” Introduction to Cellular Networks: Basic Ideas and Thought Out of the Box, *Tsinghua University, Beijing, China.*

- **Dec 2015:** Emerging Security Threats Against 4G LTE Cellular Networks: VoLTE as A Case Study and Beyond
 - Shanghai Jiaotong University, China
 - Beijing University of Posts and Telecommunications, China
- **April 2015:** Mobile Networks: Yesterday, Today and Tomorrow, The Power and the Peril of Network Evolution, *Shanghai Jiaotong University, China*.
- **Jan 2015:** Explore Problematic Design and Operations in Real 4G/3G Networks, *China Mobile Research (US), virtual talk*.
- **April 2013:** Explore Limitations of Cellular Infrastructure for Mobile Data, *Microsoft Research Asia, China*.
- **April/March 2013:** Network Support for Mobile Devices and Apps: Infrastructure Limitations & Solutions
 - University of Illinois Urbana-Champaign
 - The Ohio State University
 - University of California, Riverside
 - Tsinghua University, China
- **Dec 2011:** GreenBS: Design Energy Efficient Cellular Network Infrastructure, *IBM's Ph.D. student workshop on Frontier of Cloud Computing (F2C2)*.

Publications

Please find my Google scholar at <http://scholar.google.com/citations?user=7QF1eF4AAAAJ>,
As of 03/15/2018, Citations: 3157, H-index: 23, i10-index: 32.

Conference Papers

1. Yuanjie Li, Zengwen Yuan, Chunyi Peng, “A Control-Plane Perspective on Reducing Data Access Latency in LTE Networks”, Proceedings of the 23rd Annual International Conference on Mobile Computing and Networking (**MobiCom'17**), Snowbird, Utah, USA, Oct 2017, (**acceptance rate: 35/185= 18.9%**).
2. Haoyang Wu, Tao Wang, Zengwen Yuan, Chunyi Peng, Zhiwei Li, Zhaowei Tan, Boyan Ding, Xiaoguang Li, Yuanjie Li, Jun Liu, Songwu Lu, “The Tick Programmable Low-Latency SDR System”, Proceedings of the 23rd Annual International Conference on Mobile Computing and Networking (**MobiCom'17**), Snowbird, Utah, USA, Oct 2017, (**acceptance rate: 35/185= 18.9%**), **Best Community Paper Award**.
3. Xu Wang, Zimu Zhou, Zheng Yang, Yunhao Liu, Chunyi Peng, “Spatio-Temporal Analysis and Prediction of Cellular Traffic in Metropolis”, Proceedings of the 25th IEEE International Conference on Network Protocols (**ICNP'17**), Toronto, Canada, Oct 2017, (**acceptance rate: 18.7%**).
4. Kun Jin, Si Fang, Chunyi Peng, Zhiyang Teng, Xufei Mao, Lan Zhang and Xiang-Yang Li, “ViViSnoop: Someone is Snooping Your Typing Without Seeing It!”, Proceedings of the IEEE Conference on Communications and Network Security (**CNS'17**), Las Vegas, NV, Oct. 2017.
5. Qiang Zhai, Fan Yang, Adam C. Champion, Chunyi Peng, Jingchuan Wang, Dong Xuan, and Wei Zhao, “BRIDGELOC: Bridging Vision-Based Localization for Robots”, Proceedings of the IEEE 14th Conference on Mobile and Ad Hoc Sensor Systems (**MASS'17**), Orlando, FL, Oct. 2017.

6. Haotian Deng, Qianru Li, Yuanjie Li, Songwu Lu, Chunyi Peng, Taqi Raza, Zhaowei Tan, Zengwen Yuan, Zhehui Zhang (alphabetical order), “*Towards Automated Intelligence in 5G Systems (Invited Paper)*”, Proceedings of the 26th International Conference on Computer Communication and Networks(*ICCCN'17*), Vancouver, Canada, August 2017.
7. Li Li, Ke Xu, Dan Wang, Chunyi Peng, Kai Zheng, Haiyang Wang, Rashid Mijumbi and Xiangxiang Wang, “*A Measurement Study on Skype Voice and Video Calls in LTE Networks on High Speed Rails*”, Proceedings of the IEEE/ACM 25th International Symposium on Quality of Service (*IWQoS'17*), Vilanova I La Geltru, Spain, June 2017.
8. Zenghua Zhao, Jiankun Wang, Xingya Zhao, Chunyi Peng, Qian Guo, Bin Wu, “*NaviLight: Indoor Localization and Navigation Under Arbitrary Lights*”, Proceedings of the IEEE 36th International Conference on Computer Communications (**INFOCOM'17**), Atlanta, GA, USA, May 2017, (**acceptance rate: 292/1395= 20.9%**).
9. Han Xu, Zheng Yang, Zimu Zhou, Ke Yi, Chunyi Peng, “*TUM: Towards Ubiquitous Multi-Device Localization for Cross-Device Interaction*”, Proceedings of The 36th IEEE International Conference on Computer Communications (**INFOCOM'17**), Atlanta, GA, USA, May 2017, (**acceptance rate: 292/1395= 20.9%**).
10. Qiang Zhai, Fan Yang, Adam Champion, Chunyi Peng, Junda Zhu, Dong Xuan, Biao Chen, Yuan F. Zheng and Wei Zhao, “*S-Mirror: Mirroring Sensing Signals for Mobile Robots in Indoor Environments*”, pages 301 - 305, Proceedings of International Conference on Mobile Ad-hoc and Sensor Networks (*MSN'16*), Hefei, Anhui, China, Dec. 2016.
11. Guan-Hua Tu, Chi-Yu Li, Chunyi Peng, Yuanjie Li and Songwu Lu, “*New Security Threats Caused by IMS-based SMS Service in 4G LTE Networks*”, Proceedings of the 22nd ACM Conference on Computer and Communications Security (**CCS'16**), pages 1118-1130, Vienna, Austria, Oct. 2016, (**acceptance rate: 137/831= 16.5%**).
12. Yuanjie Li, Chunyi Peng, Zengwen Yuan, Jiayao Li, Haotian Deng and Tao Wang, “*MobileInsight: Extracting and Analyzing Cellular Network Information on Smartphones*”, Proceedings of the 22nd Annual International Conference on Mobile Computing and Networking (**MobiCom'16**), New York, USA, Oct. 2016, (**acceptance rate: 32/226 = 14.2%**), **Best Community Paper Award**.
13. Zhe Yang, Yuting Bao, Chuhao Luo, Xingya Zhao, Siyu Zhu, Chunyi Peng, Yunxin Liu and Xinbing Wang, “*ARTcode: Preserve Art and Code In Any Image*”, Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp'16**), Heidelberg, Germany, Sep. 2016. (**acceptance rate: 101/389 = 26.0%**).
14. Chunyi Peng and Yuanjie Li, “*Demystify Undesired Handoff in Cellular Networks*”, Proceedings of the 25th International Conference on Computer Communication and Networks(*ICCCN'16*), Waikoloa, Hawaii, Aug. 2016.
15. Yuanjie Li, Haotian Deng, Jiayao Li, Chunyi Peng and Songwu Lu, “*Instability in Distributed Mobility Management: Revisiting Configuration Management in 3G/4G Mobile Networks*”, Proceedings of ACM Sigmetrics (**SIGMETRICS '16**), Antibes Juan-Les-Pins, France, June 2016, (**acceptance rate: 28/208= 13.5%**).
16. Yuanjie Li, Haotian Deng, Chunyi Peng, Zengwen Yuan, Guan-Hua Tu, Jiayao Li and Songwu Lu, “*iCellular: Device-Customized Cellular Network Access on Commodity Smartphones*”, Proceedings of the 13th USENIX Symposium on Networked Systems Design and Implementation (**NSDI'16**), , Santa Clara, CA, March 2016. (**acceptance rate: 45/228=19.7%**).
17. Chunyi Peng, Yuanjie Li, Zhuoran Li, Jie Zhao and Jiaqi Xu, “*Understanding and Diagnosing Real-World Femtocell Performance Problems*”, Proceedings of IEEE International Conference on Computer Communications (**INFOCOM'16**), San Francisco, CA, April 2016. (**acceptance rate: 300/1644 = 18.2%**).

18. Chiyu Li, Guanhua Tu, Chunyi Peng, Zengwen Yuan, Yuanjie Li, Songwu Lu, Xinbing Wang, “*Insecurity of Voice Solution VoLTE in LTE Mobile Networks*”, Proceedings of the 21st ACM Conference on Computer and Communications Security (**CCS’15**), Denver, Colorado, Oct. 2015. (**acceptance rate: 128/646= 19.8%**).
19. Guanhua Tu, Chiyu Li, Chunyi Peng, Songwu Lu “*How Voice Call Technology Poses Security Threats in 4G LTE Networks*”, Proceedings of the IEEE Conference on Communications and Network Security(CNS’15), Florence, Italy, Sep. 2015. (**acceptance rate: 48/171= 28.1%**).
20. Anran Wang, Zhuoran Li, Chunyi Peng, Guobin Shen, Gan Fang, Bin Zeng, “*InFrame++: Achieve Simultaneous Screen-Human Viewing and Hidden Screen-Camera Communication*”, Proceedings of the 13th International Conference on Mobile Systems, Applications and Service (**MobiSys’15**), Florence Italy, May 2015 (**acceptance rate: 29/219 = 13.2%**).
21. Chi-Yu Li, Chunyi Peng, Songwu Lu, Xinbing Wang and Ranveer Chandra, “*Latency-Aware Rate Adaptation in 802.11n Home Networks*”, Proceedings of the IEEE Conference on Computer Communications (**INFOCOM’15**), Hong Kong, China, April, 2015 (**acceptance rate: 316/1640 = 19.3%**).
22. Li Li, Ke Xu, Dan Wang, Chunyi Peng, Qingyang Xiao and Rashid Mijumbi, “*A Measurement Study on TCP Behaviors in HSPA+ Networks on High-speed Rails*”, Proceedings of the IEEE Conference on Computer Communications (**INFOCOM’15**), Hong Kong, China, April, 2015, (**acceptance rate: 316/1640 = 19.3%**).
23. Chunyi Peng, Chiyu Li, Hongyi Wang, Guanhua Tu and Songwu Lu, “*Real Threats to Your Data Bills: Security Loopholes and Defense in Mobile Data Charging*”, Proceedings of the 21st ACM Conference on Computer and Communications Security (**CCS’14**), Scottsdale, Arizona, Nov. 2014, (**acceptance rate: 114/585 = 19.5%**).
24. Anran Wang, Shuai Ma, Chunming Hu, Jinpeng Huai, Chunyi Peng and Guobin Shen, “*Enhancing Reliability to Boost the Throughput over Screen-Camera Links*”, Proceedings of the 20th Annual International Conference on Mobile Computing and Networking (**MobiCom’14**), Maui, Hawaii, Sep. 2014, (**acceptance rate: 36/220 = 16.4%**).
25. Guanhua Tu, Yuanjie Li, Chunyi Peng, Chiyu Li, Hongyi Wang, Songwu Lu, “*Control-Plane Protocol Interactions in Cellular Networks*”, Proceedings of the ACM SIGCOMM Conference (**SIGCOMM’14**), Chicago, IL, August 2014, (**acceptance rate: 45/237 = 19.0%**).
26. Junjue Wang, Kaichen Zhao, Xinyu Zhang, Chunyi Peng, “*Ubiquitous Keyboard for Small Mobile Devices: Harnessing Multipath Fading for Fine-Grained Keystroke Localization*”, Proceedings of the 12th International Conference on Mobile Systems, Applications and Service (**MobiSys’14**), Bretton Woods, NH, June 2014, (**acceptance rate: 25/221 = 11.3%**).
27. Liqun Li, Pan Hu, Chunyi Peng, Guobin Shen, Feng Zhao, “*Epsilon: A Visible Light Based Positioning System*”, Proceedings of the 11th USENIX Symposium on Networked Systems Design and Implementation (**NSDI’14**), Seattle, WA, April 2014, (**acceptance rate: 38/223 = 17.0%**).
28. Ioannis Pefkianakis, Chiyu Li, Chunyi Peng, Suk-Bok Lee, Songwu Lu, “*CMES: Collaborative Energy Save for MIMO 802.11 Wireless Networks*”, Proceedings of the 21st IEEE International Conference on Network Protocols (**ICNP’13**), Gottingen, Germany, Oct. 2013, (**acceptance rate: 46/251 =18.3%**).
29. Guanhua Tu, Chunyi Peng, Hongyi Wang, Chiyu Li, Songwu Lu, “*How Voice Calls Affect Data in Operational LTE Networks*”, Proceedings of the 19th Annual International Conference on Mobile Computing and Networking (**MobiCom’13**), Miami, FL, USA, Sep. 2013 (**acceptance rate: 28/208= 13.5%**).
30. Guanhua Tu, Chunyi Peng, Chiyu Li, Xingyu Ma, Hongyi Wang, Tao Wang, Songwu Lu, “*Accounting for Roaming Users on Mobile Data Access: Issues and Root Causes*”, Proceedings of the 11th International Conference on Mobile Systems, Applications and Service (**MobiSys’13**), Taipei, Taiwan, June 2013, (**acceptance rate: 33/210= 15.7%**).

31. Chunyi Peng, Chiyu Li, Guanhua Tu, Songwu Lu, Lixia Zhang, “*Mobile Data Charging: New Attacks and Countermeasures*”, Proceedings of the 19th ACM Conference on Computer and Communications Security (**CCS’12**), Raleigh, NC, USA, Oct. 2012, (**acceptance rate: 80/423= 18.9%**).
32. Chunyi Peng, Guanhua Tu, Chiyu Li, Songwu Lu, “*Can We Pay for What We Get in 3G Data Access?*”, Proceedings of the 18th Annual International Conference on Mobile Computing and Networking (**MobiCom’12**), Istanbul, Turkey, Aug. 2012, (**acceptance rate: 32/212= 15.1%**).
33. Chiyu Li, Chunyi Peng, Songwu Lu, Xingbin Wang, “*EERA: Energy-Efficient Rate Adaptation for 802.11n Devices*”, Proceedings of the 18th Annual International Conference on Mobile Computing and Networking (**MobiCom’12**), Istanbul, Turkey, Aug. 2012. (**acceptance rate: 32/212= 15.1%**)
34. Chunyi Peng, Minkyong Kim, Zhe Zhang, Hui Lei, “*VDN: Virtual Machine Image Distribution Network for Cloud Data Centers*”, Proceedings of the 31st Annual IEEE International Conference on Computer Communications (**INFOCOM’12**), Orlando, Florida USA, March 2012, (**acceptance rate: 278/1547= 18%**).
35. K. R. Jayaram, Chunyi Peng, Zhe Zhang, Minkyong Kim, Han Chen, Hui Lei, “*An Empirical Analysis of Similarity in Virtual Machine Images*”, Proceedings of the 12th International Middleware Conference (**Middleware’11**) (Industry Track), Lisboa, Portugal, Dec. 2011.
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Software for global-scale experimentation over smartphones for cellular network research

HackCellular · Version 1.0 · 2015

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CNetVerifier · Version 1.0 · 2014

Software to verify cellular network inter-protocol interactions (SIGCOMM’14)

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Upon requests