

Renata Cruz Teixeira

Female, Brazilian and French, Born March 3rd 1975

Muse Team

Inria Paris

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Education

HABILITATION À DIRIGER DES RECHERCHES, UPMC (*May 2010*)

Title: “Network Troubleshooting from End-Hosts”

Committee: E. Biersack, S. Fdida, P. Francis (referee), J. Kurose (referee), V. Paxson (referee), J-P. Verjus

PH.D. IN COMPUTER SCIENCE AND ENGINEERING, University of California, San Diego (*February 2005*)

Advisor: G.M. Voelker

Dissertation title: “Network Sensitivity to Intradomain Routing Changes”

M.SC. IN ELECTRICAL ENGINEERING, Universidade Federal do Rio de Janeiro (*July 1999*)

Advisor: O.C.M.B. Duarte

Thesis title: “A Scalable Platform for Distributed Virtual Environments”

B.SC. IN COMPUTER SCIENCE – *Cum Laude*, Universidade Federal do Rio de Janeiro (*February 1997*)

Research Experience

Oct 2013—	Senior researcher at Inria Paris, France (From 2010, I’m a permanent member of the Laboratory of Information, Networking and Communication Sciences, LINCS)
Oct 2006—Sep 2013	CNRS researcher at LIP6 (joint laboratory with UPMC Sorbonne Universités, France)
Jan 2011—Dec 2011	Visiting scholar at UC Berkeley and ICSI
Oct 2005—Sep 2006	Post-doctoral fellow at LIP6, UPMC Sorbonne Universités, France
May—Sep 2004	Intern at AT&T Labs at Florham Park, New Jersey, USA
May—Sep 2003	Intern at AT&T Labs at Florham Park, New Jersey, USA
Apr 2001—Aug 2005	Research assistant at UC San Diego, USA

Teaching Experience

2016	MOOC at France Université Numerique with T. Friedman “Internet Measurements: A Hands-on Introduction”
2005—	Lecturer at Masters-level classes at UPMC Sorbonne Universités, France “Routing and Routers” “Methodology for Research”: created this class with M. Amorim and S. Tixeuil “Network Metrology”: created this class with T. Friedman
1999—2000	Teaching assistant at UC San Diego, USA “Principles of Programming Languages” “Parallel Computing”

Supervision

- Doctoral students
 1. M. Bachl, “Home network troubleshooting made easy”
 2. S. el Aouad, “Building a personalized summary from movie reviews” (with C. Diot)
 3. D. da Hora, “Monitoring of home Wi-Fi quality and its impact on quality of experience” (with K. Van Doorselaer)
- Graduated doctoral students
 1. G. Scavo (2016), “Content curation and characterization in communities of a place” (with Z. Ben-Houidi)
 2. O. Goga (2014), “Matching User Accounts Across Online Social Networks: Methods and Applications”
 3. L. Di Cioccio (2013), “Home Network Monitoring” (with M. May)
 4. D. Joumblatt (2012), “Prediction of User Dissatisfaction with Internet Application Performance at End-Hosts”
 5. I. Cunha (2011), “Tracking Internet Routes and Path Reachability for Network Tomography” (with C. Diot)
 6. Z. Ben-Houidi (2010), “Scalable Routing in Provider Provisioned Virtual Private Networks” (with M. Meulle)
 7. B. Augustin (2010), “Route Tracing under Load Balancing” (with T. Friedman)
 8. L. Bernaille (2007), “Early Application Identification” (with K. Salamatian)
- Master and engineering school students
 1. Maximilian Bachl, UPMC (February to July 2016), “Collaborative Home Network Troubleshooting”
 2. Michele Pittoni, UPMC (February to July 2016), “Online Identification of Last-Mile Throughput Bottlenecks on Home Routers”
 3. Adhir Chakravarti, UPMC (February to July 2016), “Visualizing Network Application Traffic to Diagnose Poor Application Performance at End-Hosts”
 4. S. Mohammadyari, Politecnico di Torino (March to July 2015)
 5. O. Belkadi, ENSA (National School of Applied Sciences) - Tangier (April to August 2014), “Detecting User-Generated Flows in Network Traffic”
 6. M. Santoro, Universidad Politecnica de Valencia (May to September 2014), “Detecting Interaction Period and Activity in End Host Devices”
 7. O. Goga, UPMC (April to September 2010), “Speed Measurements of Residential Internet Access”
 8. A. Reganni, UPMC (April to September 2010), “Benchmarking the performance of home gateways”
 9. L. Di Cioccio, ENSIMAG (February to July 2009), “End-host diagnosis of home networks”
 10. D. Joumblatt, UPMC (April to September 2008), “ConnectionWatch: Passive monitoring of round-trip times at end-hosts”

11. Z. Ben-Houidi, UPMC (April to September 2007), “Origin of routes explosion in Virtual Private Networks”
 12. A. Medem, UPMC (April to September 2007) , “Characterizing network events and their impact on routing”
 13. B. Augustin, UPMC (April to September 2006), “Improving Internet path discovery with Paris traceroute”
- Post-doctoral fellows
 1. A. K. Pietilainen (Jan 2012—August 2016) “Application performance monitoring on home gateways”
 2. F. Schneider (April 2010—December 2011), “Monitoring architecture for home gateways”

Research grants and contracts

- “BottleNet: Understanding and Diagnosing End-to-end Communication Bottlenecks of the Internet”, project funded by the French research agency (ANR), from Feb 2016 to Jan 2019, amount: 328,016€.
- “Collaborative Home Network Troubleshooting”, gift from Comcast, 2015, amount: US\$ 60,000.
- “User-Centric Networking (UCN)”, project funded by the European Community’s Seventh Framework Programme (FP7/2007-2013), from Oct 2013 to Sep 2016, amount: 400,572 €.
- “Improving the quality of recommendation using semi-structured user feedback”, CIFRE contract with Technicolor for the thesis of Sara El Aouad from May 2014 to April 2017, amount: 45,000 €.
- “Crowdsourced Home Network Diagnosis”, CIFRE contract with Technicolor for the thesis of Diego da Hora from Feb 2014 to Feb 2017, amount: 45,000 €.
- “Exploiting Network Content-awareness to provide novel added value services”, thesis of Giuseppe Scavo funded under the Inria/Alcatel-Lucent common Lab from Oct 2013 to Dec 2016, amount: 30,000 €.
- “Home Network Troubleshooting with the Fathom Measurement Platform”, with Christian Kreibich (ICSI), gift from Google/M-lab, 2013, amount: US\$ 76,950.
- “Understanding User Perspectives of Internet Performance”, collaboration project with Prof. Vern Paxson (UC Berkeley) funded by the France Berkeley Fund, from Oct 2012 to Sep 2013, amount: US\$ 9,900.
- “Future Internet Gateway-based Architecture of Residential Networks (FIGARO)”, project funded by the European Community’s Seventh Framework Programme (FP7/2007-2013), from Oct 2010 to Sep 2013, amount: 333,495 €.
- “Collaborative Monitoring (C’Mon)” (<http://cmon.grenouille.com>), project funded by the French research agency (ANR), from Feb 2009 to Jan 2012, amount: 246,480 €.
- “Nano Data Centers”(<http://nanodatacenters.eu>), project funded by the European Community’s Seventh Framework Programme (FP7/2007-2013) no. 223850, from May 2008 to Apr 2011, amount: 200,280 €.

- “M trologie Cooperative : Diagnostique des Pannes entre les Utilisateurs”, CIFRE contract with Technicolor for thesis of Italo Cunha from Jul 2008 to Jun 2011, amount: 22,500  .
- “M canismes de routage et d’adressage pour les futurs r seaux multiservices”, CIFRE contract with France Telecom for the thesis of Zied Ben-Houidi from Oct 2007 to Oct 2010, amount: 22,500  .
- “Gestion des r seaux domestiques”, CIFRE contract with Technicolor for the thesis of Lucas Di Cioccio from Oct 2009 to Sep 2012, amount: 30,000  .
- “Broadband Access Network Monitoring using Coordinated Home Gateways”, CIFRE contract with Technicolor for the thesis of Stephane Wustner from Feb 2012 to Jan 2015, amount: 30,000  .

Professional Activities

- Vice-chair of ACM SIGCOMM (Since July 2013).
- Member of the steering committee of:
 - the ACM Internet Measurement Conference (Nov. 2009–Jun. 2016), and
 - the Passive and Active Measurement Conference (May 2008–Oct. 2011).
- Organizing committees:
 - Workshop co-chair of ACM SIGCOMM 2015,
 - General co-chair of ACM CoNEXT 2012,
 - Co-chair of the Second ACM SIGCOMM Workshop on Home Networks (HomeNets) 2011,
 - Co-chair of the ACM SIGCOMM 2009 poster and demo session,
 - Co-chair of the IEEE INFOCOM 2009 student workshop, and
 - Co-chair of the CoNEXT 2006 student workshop.
- Technical program committees:
 - Co-chair of the program committee of ACM IMC 2017,
 - Co-chair of the program committee of ACM/ISOC ANRW 2017,
 - Co-chair of the program committee of ACM CoNEXT 2015,
 - Program chair of the 5th PhD School on Traffic Monitoring and Analysis (TMA), 2015,
 - Chair of the program of the 5th PhD School on Traffic Monitoring and Analysis (TMA), 2015,
 - Chair of the program committee of PAM 2009,
 - Co-chair of the program committee of the Second ACM SIGCOMM Workshop on Home Networks (HomeNets) 2011,
 - Co-chair of the program committee of the ACM SIGCOMM 2009 poster and demo session,
 - Co-chair of the program committee of the IEEE INFOCOM 2009 student workshop,
 - Co-chair of the program committee of the Workshop for Methods and Tools for Network Analysis 2007, and

- Co-chair of the program committee of the CoNEXT 2006 student workshop.
- Member of the program committee of:
 - ACM SIGCOMM 2007, 2008, 2009, 2010, 2012, 2014, 2017
 - USENIX NSDI 2013
 - ACM SIGCOMM Poster and Demo 2009, 2010, 2014
 - IEEE INFOCOM 2007, 2009, 2010
 - ACM CoNEXT 2008, 2009, 2010, 2014
 - ACM IMC 2006, 2007, 2011, 2015, 2016
 - PAM 2009, 2010
 - Ubicomp Workshop on Systems and Infrastructure for the Digital Home (HomeSys) 2012
 - ACM SIGCOMM Workshop on Home Networks 2010, 2011
 - ACM SIGCOMM Workshop on Measurements Up the Stack (W-MUST) 2011, 2012
 - ACM HotNets 2009
 - WPerformance (brazilian workshop) 2006, 2008
 - CoNEXT student workshop 2007
 - IFIP/ACM Latin America Networking Conference 2007
 - Workshop de Gerência e Operação de Redes e Serviços 2007
 - ACM SIGCOMM Workshop on Large Scale Attack Defense 2006
 - Colloque Francophone sur l’Ingénierie des Protocoles (CFIP) 2006.
- Editorial boards
 - Editor of IEEE/ACM Transactions on Networking (Feb. 2011 – Feb. 2015)
 - Area editor of ACM Sigcomm Computer Communication Review (Feb. 2010 – July 2014)
- Reviewer for international journals: IEEE Journal on Selected Areas in Communications, IEEE/ACM Transactions on Networking, and ACM Sigcomm Computer Communication Review.
- Expertise
 - Reviewer on the selection of: EU H2020 projects (2014); EU STREP projects (2007); Fundação para a Ciência e a Tecnologia (Portuguese projects) (2010).
 - Reviewer of H2020 and FP7 projects: MAMI, CogNet, SUPERFLUIDITY, MONROE, Trilogy2, Trilogy.
 - Technical advisory board of the project “Mapping of Broadband Services in Europe”.
- Member of Doctoral examining committees: Sheharbano Khattak (University of Cambridge, 2016), Zachary Scott Bischoff (Northwestern University, 2016), Srikanth Sundaresan (Gorgia Tech, 2014), Boris Nechaev (Aalto University, Finland, 2013), Udi Weinsberg (Tel-Aviv University, Israel, 2012), Virginie Van den Schrieck (Université Catholique de Louvain, Belgium, 2010), Marc-Olivier Buob (France Telecom and Université d’Angers, France, 2008), Hung X. Nguyen (EPFL, Switzerland, 2008).

Prizes and Awards

- ACM Internet Measurement Conference 2013 Community Contribution Award for the paper “Measuring and Mitigating Web Performance Bottlenecks in Broadband Access Networks”.
- Best paper award at SBRC (Brazilian Networking Conference) 2013.
- 2012 Applied Networking Research Prize (ANRP) presented at the IETF meeting in November 2012, for the paper “Broadband Internet Performance: A View From the Gateway”.
- Prime d’Encadrement Doctoral et de Recherche (Inria) 2015 - 2019 (financial bonus granted to researchers with significant contributions both to
- Prime d’excellence scientifique of the Centre National de la Recherche Scientifique (CNRS) 2011 (financial bonus granted to top researchers at CNRS).
- Best paper award at CoNEXT 2006.
- UCSD’s Department of Computer Science and Engineering Ph.D. Dissertation Award of 2005.

Publications

1. D. Da Hora, R. Teixeira, K. Van Doorselaer, K. Van Oost, “Predicting the effect of home Wi-Fi quality on Web QoE”, ACM SIGCOMM Workshop on QoE-based Analysis and Management of Data Communication Networks (Internet-QoE 2016), Aug 2016, Florianopolis, Brazil.
2. M. Katsarakis, R. Teixeira, M. Papadopouli, V. Christophides, “Towards a Causal Analysis of Video QoE from Network and Application QoS”, ACM SIGCOMM Workshop on QoE-based Analysis and Management of Data Communication Networks (Internet-QoE 2016), Aug 2016, Florianopolis, Brazil.
3. D. Da Hora, K. Van Doorselaer, K. Van Oost, R. Teixeira, C. Diot, “Passive Wi-Fi Link Capacity Estimation on Commodity Access Points”, Traffic Monitoring and Analysis Workshop (TMA) 2016, Apr 2016, Louvain-la-Neuve, Belgium. 2016.
4. S. Sundaresan, N. Feamster, R. Teixeira, “Home Network or Access Link? Locating Last-Mile Downstream Throughput Bottlenecks”, in Passive and Active Network Measurement (PAM) Conference, March 2016.
5. S. El Aouad, C. Dupuy, R. Teixeira, C. Diot, F. Bach, “Exploiting crowd sourced reviews to explain movie recommendation”, 2nd Workshop on Recommendation Systems for TELEVISION and ONLINE VIDEO, Sep 2015, Vienna, Austria.
6. O. Goga, P. Loiseau, R. Sommer, R. Teixeira, K. Gummadi, “On the Reliability of Profile Matching Across Large Online Social Networks”, in KDD’15, August 2015.
7. S. Sundaresan, N. Feamster, and R. Teixeira, “Measuring the Performance of User Traffic in Home Wireless Networks”, in Passive and Active Network Measurement (PAM) Conference, March 2015.
8. S. Sundaresan, N. Feamster, and R. Teixeira, “Locating Throughput Bottlenecks in Home Networks”, ACM SIGCOMM (demonstration), August 2014.

9. I. Cunha, R. Teixeira, D. Veitch, and C. Diot, “DTrack: A System to Predict and Track Internet Path Changes”, *IEEE/ACM Transactions on Networking*, 22(4), pp. 1025–1038, August, 2014.
10. S. Wustner, R. Teixeira, J. Chandrashekar, “Characterizing Bufferbloat and its Impact at End-hosts”, in *Proc. of TMA workshop*, 2014.
11. S. Sundaresan, N. Feamster, R. Teixeira, N. Magharei, “Measuring and Mitigating Web Performance Bottlenecks in Broadband Access Networks”, in *Proc. of ACM IMC*, 2013. (Community Contribution Award).
12. O. Goga, H. Lei, SHK. Parthasarathi, G. Friedland, R. Sommer, R. Teixeira, “Exploiting Innocuous Activity for Correlating Users Across Sites”, *World Wide Web Conference (WWW)*, May 2013.
13. I. Cunha, R. Teixeira, D. Veitch, C. Diot, “RemapRoute: Reduzindo o custo do remapeamento de mudancas de roteamento na Internet”, in *Proc. of SBRC 2013*. (Best paper).
14. D. Joumblatt, J. Chandrashekar, B. Kevton, N. Taft, R. Teixeira, “Predicting User Dissatisfaction with Internet Application Performance at End-Hosts”, in *Proc. of IEEE INFOCOM (mini-conference)*, April 2013.
15. L. Di Cioccio, R. Teixeira, C. Rosenberg, “Measuring Home Networks with HomeNet Profiler”, in *Proc. of Passive and Active Measurement Conference*, March 2013.
16. S. Sundaresan, W. de Donato, N. Feamster, R. Teixeira, S. Crawford, and A. Pescape, “Measuring Home Broadband Performance”, *Communications of the ACM*, November 2012.
17. M. Dhawan, J. Samuel, R. Teixeira, C. Kreibich, M. Allman, N. Weaver, and V. Paxson, “Fathom: A Browser-based Network Measurement Platform”, in *Proc. of ACM Internet Measurement Conference*, November 2012. (Nominee for Best Paper Award)
18. J. Whiteaker, F. Schneider, R. Teixeira, C. Diot, A. Soule, F. Picconi, M. May. “Expanding home services with advanced gateways”, *Computer Communication Review*, October 2012.
19. L. Di Cioccio, R. Teixeira, C. Rosenberg, “Measuring and Characterizing Home Networks”, in *Proc. of ACM SIGMETRICS (extended abstract)*, June 2012.
20. D. Joumblatt, O. Goga, R. Teixeira, J. Chandrashekar, N. Taft, “Characterizing end-host application performance across multiple networking environments”, in *Proc. of IEEE INFOCOM (mini-conference)*, March 2012.
21. O. Goga, R. Teixeira, “Speed Measurements of Residential Internet Access”, in *Proc. of Passive and Active Measurement Conference*, March 2012.
22. A. Reggani, F. Schneider, R. Teixeira, “An end-host view on local traffic at home and work”, in *Proc. of Passive and Active Measurement Conference*, March 2012.
23. L. Di Cioccio, R. Teixeira, M. May, C. Kreibich, “Probe and Pray: Using UPnP for Home Network Measurements”, in *Proc. of Passive and Active Measurement Conference*, March 2012.
24. I. Cunha, R. Teixeira, D. Veitch, and C. Diot, “Predicting and Tracking Internet Path Changes”, in *Proc. of ACM SIGCOMM*, August 2011.

25. S. Sundaresan, W. de Donato, N. Feamster, R. Teixeira, S. Crawford, and A. Pescape, "Broadband Internet Performance: A View From the Gateway", in *Proc. of ACM SIGCOMM*, August 2011.
26. S. Sundaresan, N. Feamster, R. Teixeira, A. Tang, W. K. Edwards, R. E. Grinter, M. Chetty, and W. de Donato, "Helping Users Shop for ISPs with Internet Nutrition Labels", in *Proc. of ACM SIGCOMM Workshop on Home Networks*, August 2011.
27. D. Joumblatt, R. Teixeira, J. Chandrashekar, N. Taft, "Performance of Networked Applications: The Challenges in Capturing the User's Perception", in *Proc. of ACM SIGCOMM Workshop on Measurements Up the Stack*, August 2011.
28. B. Augustin, T. Friedman, and R. Teixeira, "Measuring Multipath Routing in the Internet", *IEEE/ACM Transactions on Networking*, 19(3), p. 830–840, June 2011.
29. I. Cunha, R. Teixeira, and C. Diot, "Measuring and Characterizing End-to-End Route Dynamics in the Presence of Load Balancing", in *Proc. of Passive and Active Measurement Conference*, April 2011.
30. J. Whiteaker, F. Schneider, and R. Teixeira, "Explaining Packet Delays under Virtualization", *Computer Communication Review*, January 2011.
31. A. Medem, R. Teixeira, and N. Usunier, "Predicting critical intradomain routing events", in *Proc. of the IEEE International Global Communications conference (Globecom)*, December 2010.
32. A. Medem, R. Teixeira, N. Feamster, and M. Meulle, "Joint analysis of network incidents and intradomain routing changes" in *Proc. of the IEEE/IFIP International Conference on Network and Service Management*, October 2010.
33. L. Di Cioccio, R. Teixeira, and C. Rosenberg, "Impact of home networks on end-to-end performance: Controlled experiments", in *Proc. of ACM SIGCOMM Workshop on Home Networks*, September 2010.
34. D. Joumblatt, R. Teixeira, J. Chandrashekar, and N. Taft, "HostView: Annotating end-host performance with user feedback", in *Proc. of ACM HotMetrics workshop*, June 2010.
35. D. Joumblatt, R. Teixeira, J. Chandrashekar, and N. Taft, "Perspectives on Tracing End-hosts: A Survey Summary", *Computer Communication Review (editorial)*, April 2010.
36. I. Cunha, R. Teixeira, N. Feamster, and C. Diot "Measurement Methods for Fast and Accurate Blackhole Identification with Binary Tomography", in *Proc. of ACM Internet Measurement Conference*, November 2009.
37. Z. Ben Houidi, M. Meulle, and R. Teixeira, "Understanding Slow BGP Routing Table Transfers", in *Proc. of ACM Internet Measurement Conference*, November 2009.
38. A. Medem, M.-I. Akodjenou, and R. Teixeira, "Troubleminer: Mining Network Trouble Tickets", in *Proc. of IFIP/IEEE International Workshop on Management of the Future Internet*, June 2009.
39. H. X. Nguyen, R. Teixeira, P. Thiran, and C. Diot, "Minimizing Probing Cost for Detecting Interface Failures: Algorithms and Scalability Analysis", in *Proc. of IEEE Infocom*, April 2009.
40. D. Veitch, B. Augustin, R. Teixeira, and T. Friedman, "Failure Control in Multipath Route Tracing", in *Proc. of IEEE Infocom*, April 2009.

41. I. Cunha, F. Silveira, R. Oliveira, R. Teixeira, and C. Diot, "Uncovering Artifacts of Flow Measurement Tools", in *Proc. of Passive and Active Measurement Conference*, April 2009.
42. R. Teixeira, A. Shaikh, T. Griffin, and J. Rexford, "Impact of Hot-Potato Routing Changes in IP Networks", *IEEE/ACM Transactions on Networking*, 16(6), p. 1295-1307, December, 2008.
43. Y. Huang, N. Feamster, R. Teixeira, "Practical Issues with Using Network Tomography for Fault Diagnosis", *Computer Communication Review (Editorial)*, October, 2008.
44. F. Layouni, B. Augustin, T. Friedman, R. Teixeira, "Origine des étoiles dans traceroute", *Colloque Francophone sur l'ingénierie des Protocoles*, February, 2008.
45. F. Viger, B. Augustin, X. Cuvellier, C. Magnien, M. Latapy, T. Friedman, and R. Teixeira, "Detection, understanding, and prevention of traceroute measurement artifacts", in *Computer Networks*, 52(5), p. 998-1018, 2008.
46. A. Dhamdhare, R. Teixeira, C. Dovrolis, and C. Diot, "NetDiagnoser: Troubleshooting network unreachabilities using end-to-end probes and routing data", in *Proc. of CoNEXT*, December 2007.
47. B. Augustin, T. Friedman, and R. Teixeira, "Measuring load-balanced paths in the Internet", in *Proc. of ACM Internet Measurement Conference*, October 2007.
48. R. Teixeira, T. Griffin, M. G. C. Resende, and J. Rexford, "TIE Breaking: Tunable Interdomain Egress Selection", *IEEE/ACM Transactions on Networking*, 15(4), August 2007.
49. B. Augustin, T. Friedman, and R. Teixeira, "Multipath tracing with Paris traceroute", in *Workshop on End-to-End Monitoring Techniques and Services*, May 2007.
50. R. Teixeira, S. Uhlig, and C. Diot, "BGP Route Propagation between Neighboring Domains", in *Proc. of Passive and Active Measurements Conference*, April 2007.
51. L. Bernaille and R. Teixeira, "Early Recognition of Encrypted Applications", in *Proc. of Passive and Active Measurements Conference*, April 2007.
52. L. Bernaille, R. Teixeira, and K. Salamatian, "Early Application Identification", in *Proc. of CoNEXT*, Decembre 2006. (Best paper award)
53. B. Augustin, X. Cuvellier, B. Orgogozo, F. Viger, T. Friedman, M. Latapy, C. Magnien, and R. Teixeira, "Avoiding traceroute anomalies with Paris traceroute", in *Proc. of the ACM Internet Measurement Conference*, October 2006.
54. L. Bernaille, R. Teixeira, I. Akodjenou, A. Soule, and K. Salamatian, "Traffic Classification On The Fly", *Computer Communication Review (Editorial)*, April 2006.
55. R. Teixeira and J. Rexford, "Managing Routing Disruptions in Internet Service Provider Networks", *IEEE Communications Magazine*, March 2006.
56. R. Teixeira, S. Agarwal, and J. Rexford, "BGP Routing Changes: Merging Views from Two ISPs", *Computer Communication Review (Editorial)*, October 2005.

57. R. Teixeira, T. Griffin, M.G.C. Resende, and J. Rexford, “TIE Breaking: Tunable Interdomain Egress Selection”, in *Proc. CoNEXT*, Toulouse, France, October 2005.
58. R. Teixeira, N. Duffield, J. Rexford, and M. Roughan, “Traffic Matrix Reloaded: The Impact of Routing Changes”, in *Proc. Passive and Active Measurement Conference*, March 2005.
59. R. Teixeira, T. Griffin, A. Shaikh, and G.M. Voelker, “Network Sensitivity to Hot-Potato Disruptions”, in *Proc. ACM SIGCOMM*, September 2004.
60. R. Teixeira and J. Rexford, “A Measurement Framework for Pin-Pointing Routing Changes”, in *Proc. ACM SIGCOMM Network Troubleshooting Workshop*, September 2004.
61. R. Teixeira, A. Shaikh, T. Griffin, and J. Rexford, “Dynamics of Hot-Potato Routing in IP Networks”, in *Proc. ACM SIGMETRICS*, June 2004.
62. R. Teixeira, K. Marzullo, S. Savage, and G.M. Voelker, “In Search of Path Diversity in ISP Networks”, in *Proc. USENIX/ACM Internet Measurement Conference*, October 2003.
63. R. Teixeira, K. Marzullo, S. Savage, and G.M. Voelker, “Characterizing and Measuring Path Diversity in Internet Topologies”, in *Proc. ACM SIGMETRICS* (extended abstract), June 2003.
64. R. Teixeira and O.C.M.B. Duarte, “Evaluating the Impact of the Communication System on Distributed Virtual Environments”, *Multimedia Tools and Applications*, Kluwer Academic Publishers, 19(3), p. 259–278, March 2003.
65. R. Teixeira and O.C.M.B. Duarte, “Uma Plataforma para Sistemas Distribuídos de Realidade Virtual” (A Platform for Distributed Virtual Environments) in *Proc. XXVI Seminário Integrado de Software e Hardware*, July 1999.
66. R. Teixeira and O.C.M.B. Duarte, “Requisitos de Ambientes Virtuais Distribuídos de Larga Escala” (Requirements of Large Scale Distributed Virtual Environments), *Proc. I Workshop de Realidade Virtual*, pp. 26-35, November 1997.

Tutorials

- “Internet Measurements: A Hands-on Introduction”, with T. Friedman and A.-K. Pietilainen, ACM SIGCOMM, Florianopolis, Brazil, August 2016.
- “Internet measurements: topology discovery and dynamics”, Rescom summer school, Corsica, May 2014.
- “Measurements close to users”, 4th PhD School on Traffic Monitoring and Analysis (TMA), London, April 2014.
- “Internet measurements: Fault detection, identification, and topology discovery”, Winter School on Hot Topics in Distributed Computing, La Plagne, March 2012.
- “Internet measurements: fault detection, identification, and topology discovery”, ACM SIGMETRICS, Seattle, USA, June 2009.
- “Internet routing and routing measurements”, Asian School on Computer Science, Bangkok, Thailand, November 2007.

Invited Talks

- RIPE: “Impact of home network on end-to-end Internet performance” (2011); “Hot Potatoes Heat Up BGP Routing” (2005).
- North American Network Operators’ Group (NANOG): “Hot Potatoes Heat Up BGP Routing” (2004).
- Invited workshops: ACM SIGCOMM Workshop on QoE-based Analysis and Management of Data Communication Networks (Internet-QoE 2016), “The Challenges of Measuring Internet Quality of Experience” (2016); Workshop of “Aux frontières du système” of the “Conférence d’informatique en Parallélisme, Architecture et Système”, “Home network performance diagnosis” (2015); Journée thématique - Métrologie des réseaux - de la DGA, “HostView: Measuring Internet quality of experience on end-hosts” (2015); Journée du Conseil scientifique de l’Afnic (2015), “HostView: Measuring Internet quality of experience on end-hosts”; Microsoft Research Devices and Networking Summit, “Home network performance diagnosis” (2015); Information and Communication Systems and their application to vertical sectors: “Home Network Performance Diagnosis” (2015); Homework project workshop: “Home Network Performance Diagnosis” (2012); TNO 2nd International Broadband Home Seminar: “Home Network Performance Diagnosis” (2012); Workshop on Active Internet Measurements: “Measuring Internet Experience from Home Networks” (2015), “Probe and Pray: Using UPnP for Home Network Measurements” (2012), “Home Network Performance Diagnosis” (2011); “HostView: Annotating end-host performance measurements with user feedback” (2011); “Which factors affect access network performance?” (2010); “Network tomography for fault diagnosis” (2009); IPAM, Multiscale representation, Analysis, and Modelling of Internet Data and Measurements Workshop: “Network tomography for fault diagnosis” (2008); Workshop on Internet Routing Evolution and Design (WIRED): “Network Troubleshooting: A Collaborative Effort” (2006), “What is in a Router’s Mind” (2003).
- Universities: “HostView: Measuring Internet quality of experience on end-hosts”, Princeton (2015), “Fathom: A Browser-based Network Measurement Platform”, UFRJ (2015), “Measuring Internet Experience from Home Networks”, UFRJ (2014), UFMG (2014), University of Washington (2014); “Residential broadband Internet performance” Princeton (2012), UFRJ (2012), “Predicting User Dissatisfaction with Internet Application Performance at End-Hosts”, Columbia (2012), UFF (2012), UFMG (2012), “Performance of networked applications: The challenges in capturing the users perception” University of Massachusetts Amherst (2011), UC Berkeley (2011); “Network troubleshooting from end-hosts”, Stanford (2011); “End-to-end measurements for fault detection and identification” MPI-SWS (2010), Tel-Aviv University (2010), UC San Diego (2009), TU Berlin (2009), Princeton (2008), UFRJ (2008); “Early Application Identification” NICTA (2007); “Network Sensitivity to Intradomain Routing Changes”, UC Berkeley (2004), MIT (2004), Boston University (2004).

Patents

- Granted
 - G. Scavo, Z. Ben Houidi, R. Teixeira, “Method for online detection of web addresses intentionally requested by a user in a stream of web content requests”, EP2958299 B1, November 30, 2016.
 - L. Di Cioccio, M. May, J. Kurose, R. Teixeira, “Method of diagnosis of degradation in a heterogeneous network using a neighbour network”, US patent 20160021555, January 21, 2016.

- T. Griffin, M.G.C. Resende, J. Rexford, and R. Teixeira, “Traffic Engineering Method with Tunable Inter-domain Egress Selection” U.S. patent 7904586, March 8, 2011.
- T. Griffin, M.G.C. Resende, J. Rexford, and R. Teixeira, “Method for Tunable Inter-Domain Egress Selection” U.S. patent 7581022, August 25, 2009.
- Pending
 - M. May, L. Di Cioccio, R. Teixeira, C. Kreibich, “Using UPnP Data Counters in Gateway for Home Network Measurements” patent pending (Technicolor invention filing number 120016, provisional filing number 120019), December 6, 2011.
 - R. Teixeira, A. Shaikh, T. Griffin, and J. Rexford, “Method and Apparatus for Classifying Inter-domain Routing Changes Caused by Intradomain Routing” U.S. patent (Pending), submitted Dec. 2005.

Software

1. Fathom: <http://fathom.icsi.berkeley.edu/>
Team: M. Dhawan, J. Samuel, C. Kreibich, N. Weaver, M. Allman, V. Paxson
Description: For analyzing network performance issues, there can be great utility in having the capability to measure directly from the perspective of end systems. In this work we leverage the ubiquity of web browsers to demonstrate the possibilities of browsers themselves offering such a programmable environment. We developed *Fathom*, a Firefox extension that implements a number of measurement primitives that enable websites or other parties to program network measurements using JavaScript.
Users’ community: The goal is that the general public will install our Firefox extension and then Internet measurement researchers or website operators can perform measurements by calling Fathom’s API from JavaScript code in web pages.
2. HomeNet Profiler: <http://muse.inria.fr/hnp/pages/home>
Team: L. Di Cioccio, C. Rosenberg
Description: HomeNet Profiler is a Java application that users run on their computers connected to their home network to get a report about their home network configuration. HomeNet Profiler collects a wide range of measurements including: the set of devices, the set of services (with UPnP and Zeroconf), and the characteristics of the WiFi environment.
Users’ community: General public (more than 2,000 runs so far)
3. HostView: <http://muse.inria.fr/EMD/Home.html>
Team: D. Joumlatt, J. Chandrashekar, N. Taft
Description: HostView is an end-host measuring tool to collect network performance data annotated with users’ perceived quality of the network. We plan to evolve HostView into a tool that will automatically detect network performance problems and help users solve these problems. The current version represents a first step in this direction, it collects data from end-hosts to guide our research. We are working on a new release of HostView with a more detailed report of network usage as an incentive for users.
Users’ community: We announced HostView in networking conferences and mailing lists. 40 users ran the first version of HostView for more than two weeks.

4. Paris traceroute: <http://www.paris-traceroute.net/>

Team: B. Augustin, J. Auge, M. Buob, X. Cuvellier, F. Viger, T. Friedman, M. Latapy, C. Magnien

Description: We built a new traceroute that measures Internet paths accurately and infers all paths between a source and destination in the presence of load balancing.

Users' community: Internet measurement researchers, network operators, and users troubleshooting their network connectivity. Paris traceroute is distributed with Debian Linux and it has become the tool-of-choice for topology tracing (for example, CAIDA's Ark and Dimes now use Paris traceroute)