

Chadi BARAKAT

PhD in Computer Sciences - Electrical and Electronics Engineer

Birth : Saida (Lebanon), 19th June 1974
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Profession

- 03/02 - : Research scientist, Planète project-team, INRIA Sophia Antipolis - Méditerranée, France.
- 03/04 - 08/04: Invited Faculty Member, Intel Research Cambridge, UK.
- 05/01 - 03/02: Postdoctoral fellow, LCA - FIC - EPFL, Lausanne, Switzerland.
- 09/98 - 05/01: PhD student, Mistral project-team, INRIA, France.
- 03/98 - 07/98: Intern, networking department, ENST-Paris, France.

Degrees

- January 2009: Habilitation à Diriger des Recherches from the University of Nice - Sophia Antipolis, France.
Title: Solutions efficaces pour la métrologie de l'Internet.
- April 2001: PhD degree in Computer Sciences from the University of Nice - Sophia Antipolis, France.
 - *Laboratory*: Mistral project-team, INRIA, France.
 - *Advisor*: Eitan Altman.
 - *Title*: Performance evaluation of TCP congestion control.
- June 1998: DEA (Diplôme d'Études Approfondies, the french equivalent of the Master degree) in Networking and Distributed Systems, University of Nice - Sophia-Antipolis, France.
- July 1997: Electrical and Electronics Engineering degree, Lebanese University, Beirut, Lebanon.

Awards, Distinctions

- Senior member of the IEEE, January 2010.
- Best paper award for my paper "Optimal Buffer Management Policies for Delay Tolerant Networks", IEEE SECON conference, San Francisco, June 2008.
- Best PhD student paper award for my paper "On ACK filtering on a slow reverse channel", first international workshop on Quality of future Internet Services, Berlin, September 2000.
- Hariri foundation award, top 100 funded by the foundation in Lebanon and abroad, five times from 1993 to 1997.

Research Interests Internet measurement and traffic analysis, congestion and error control in computer networks, performance evaluation of wireless networks, voice over IP, Peer-to-Peer and content-centric architectures, network coding, Delay Tolerant Networking.

Research Projects

- Network diagnosis by means of collaborative monitoring. Supported by the CMON ANR project.
- Content sharing in wireless networks. Supported by the ITEA Expeshare project.
- Adaptive traffic sampling. Supported by the ECODE FP7 project.
- Understanding the Properties of the BitTorrent Overlay. Initially supported by the OSCAR ANR project.
- Scheduling and resource control in Delay Tolerant Networks.
- Scalable solutions for data collection. Initially supported by Hitachi Europe.
- Performance evaluation of congestion control in the Internet.

Professional activities

- Associate editor for the Elsevier Computer Networks journal (2012-present).
- General co-chair for ACM CoNEXT 2012, Nice.
- Member of the Conseil d'Orientation Scientifique et Technologique (COST) at INRIA (2011-present).
- Scientific referee for foreign affairs at INRIA Sophia-Antipolis (2011-present).
- Member of the CUMIR committee at INRIA Sophia-Antipolis (Commission des Utilisateurs des Moyens Informatiques), 2010 - present.
- Co-organizer of the francophone summer school ResCom 2007.
- Guest editor for a JSAC special on Sampling the Internet: Techniques and Applications (2006).
- Area editor for ACM Computer Communication Review (CCR), 2005-2010.
- Steering committee member for PAM workshop (Passive and Active Measurement), 2004-2007.
- Program Committee co-chair for the Sampling 2005 workshop (Paris).
- General chair for WiOpt 2005 workshops (Riva Del Garda, Italy).
- General chair for PAM 2004 (Juan-les-Pins, France).
- Member of the directory board for the Networking Master at the University of Nice-Sophia Antipolis (2005-2008), responsible of the internships for the same Master (2005-2008), and external member in the hiring committee at the computer sciences department of the University of Nice-Sophia Antipolis (2005-2008).
- Member of the E-next European Network of Excellence - 2003-2006.
- (Co)Organizer of Mistral seminars (1999-2001), of Planète seminars (2003 -), of "seminar croisé Réseau" (October 2003) and of INRIA ComB evaluation seminar (November 2007).

- Technical Program Committee member for CNSM 2012 (Las Vegas), CoNEXT 2011 (Tokyo), ICCCN 2011 (hawaii), Infocom 2011 (Shanghai), ACM IMC 2010 (Melbourne), Infocom 2010 (San Diego), Comsnets 2010 (Bangalore), NSTools 2009 (Pisa), Algotel 2009 (France), ITC 2009 (Paris), Infocom 2009 (Rio), Broadnets 2008 (London), WNS2 2008 (Athens), WinMee 2008 (Berlin), PFLDnet 2008 (Manchester), NSTools 2007 (Nantes), SECON 2007 (San Diego), WWIC 2007 (Coimbra), CoNEXT 2006 (Lisbon), IWQoS 2006 (New Haven), WWIC 2006 (Bern), WONS 2006 (Lyon), WinMee 2006 (Boston), IMC 2005 (Berkeley), ICNP 2005 (Boston), PAM 2005 (Boston), WONS 2005 (St. Moritz), INFOCOM 2005 (Miami), ASWN 2004 (Boston), GI&NGN symposium at Globecom 2004 (Dallas), PAM 2004 (Juan-les-Pins), INFOCOM 2004 (Hong Kong), ASIAN 2002 (Hanoi), ICNP 2002 (Paris).
- Session chair at IMC 2011 (Berlin), IMC 2005 (Berkeley), WiOpt 2003 (Sophia Antipolis), ICNP 2002 (Paris).
- Invited speaker at CFIP conference - 2011 (Ste Maxime), UC Santa Cruz - 2010, ETH (Zurich) - 2009, Bell-Labs (NJ) - 2009, Brunel University (UK) - 2008, COST 285 final symposium (Surrey, UK) - 2007, Asian school (Bangkok) - 2005, E-next school (Louvain) - 2005, KTH (Stockholm) - 2005, ENSI (Tunis) - 2005, MIT (Boston) - 2004, UMASS (Amherst) - 2004, Boston University (Boston) - 2004, Intel Research Cambridge - 2004, ENSI (Tunis) - 2004, ASIAN school (Bangkok) - 2003, Ecole Normale Supérieure (Paris) - 2003, Ecole d'été Internet Nouvelle Génération (Porquerolles) - 2003, ENSI (Tunis) - 2003, EPFL Summer Research Institute (Lausanne) - 2002, IBM (Zurich) - 2001.
- Speaker in many international conferences: IMC 2009 (Chicago), SECON 2008 (San Francisco), CoNEXT 2006 (Lisboa), CoNEXT 2005 (Toulouse), WiOpt 2003 (Paris), PFLDnet 2003 (Geneva), IMW 2002 (Marseille), ICN 2001 (Colmar), INFOCOM 2001 (Alaska), QofIS 2000 (Berlin), SIGCOMM 2000 (Stockholm), SIGMETRICS 2000 (Santa Clara), NETWORKING 2000 (Paris), GLOBECOM 1999 (Rio).
- Referee for many international conferences (SIGCOMM, INFOCOM, Co-next, SIGMETRICS, ICNP, GLOBECOM, NETWORKING, WiOpt, ISCC, ASIAN, Net-Con,...) and journals (Transactions on Networking, Transactions on Multimedia, Transactions on Wireless Communications, JSAC, Performance Evaluation, IEEE Networks, Communication Magazine, ACM CCR, Computer Networks, Computer Communications,...).

Industrial collaborations

- Manager of the CMON ANR French project led by Thomson (2009-2012).
- Manager of the ECODE STREP European project led by Alcatel-Lucent Belgium (2009-2012).
- Manager of the Expeshare ITEA European project involving over 40 partners (Nokia, Philips, VTT, Siemens, Telefonica, etc) (2007-2009).
- Manager of the OSCAR French RNRT project led by FranceTelecom and involving Mitsubishi (2006-2008).
- A visit of six months to Intel Research Cambridge (2004).
- A collaboration of one year (2005) with Alcatel Marcoussis on Internet Topology Inference.
- TRANSAT: ESA Project led by Alcatel space on improving satellite access networks (2002-2004).
- TICP: Project with Hitachi on collecting information in wide area networks (2002).
- Collaboration with Sprint ATL and EPFL on traffic modeling and protection (2001-2002).
- Expert for two companies at Sophia Antipolis for their Crédit D'Impôt Recherche.
- Expert for the two European projects MOMENT and PSIRP.

Software

- ACQUA: Active probing tool for the detection and impact evaluation of anomalies at the Internet access.
- MobiTrade: Enables content trading between wireless devices.
- MonLab: A platform for network-wide traffic emulation, sampling and monitoring.
- BitHoc: Enables file sharing over wireless ad hoc networks.
- TICP: Enables data collection in large networks.
- A set of scripts for TCP analysis in the ns-2 simulator.

Teaching activities

- Course on Understanding Networks, 30 hours, Master IFI-Ubinet, University of Nice Sophia Antipolis, 2008-present.
- Course on Internet Measurement and Traffic Analysis, 15 hours, (i) Networking and Distributed Systems Master at the University of Nice Sophia Antipolis, 2004-2007, (ii) Master RIM, ENSI, Tunis, 2003-2007, (iii) AIT Thailand, 2003 and 2005, (iv) Telecom ParisTech, 3 hours, 2009-present, and (v) ETH, Zurich, 2 hours, 2009.
- Course on Wireless Networking, 7 hours, Master RTM, IUP Avignon, 2009-present.
- General course on TCP/IP, 20 hours, Licence Professionnelle LPSIL, IUT of the UNSA, 2006-2008.
- Course on local area networks, 21 hours + 10 hours practical work, IUT of the University of Nice Sophia Antipolis, 2007-present.
- Course on Voice over IP, 7 hours, (i) Ecole d'Ingénieur Internet, Marseille, 2003, (ii) Master TSM, UNSA, 2007-present, (iii) Master RTM, IUP Avignon, 2008.
- Course on Inference of Internet Topology, 7 hours, Master RTM, IUP Avignon, 2006-2008.
- Exercises on Performance Evaluation in Networking, 6 hours, Institut Eurecom, Sophia Antipolis, 2003.
- Course on TCP/IP, 6 hours, Maîtrise Informatique, University of Nice - Sophia Antipolis, France, 2003.
- Exercises on Networking, Doctoral School, DSC-EPFL, Lausanne, Switzerland, 2001.
- Course with exercises on ns-2, 7 hours, (i) Networking and Distributed Systems Master, University of Nice - Sophia Antipolis, France, 2001-2003, (ii) Master RTM, IUP Avignon, 2008.
- Course with research projects on Internet over Satellites, 6 hours, Networking and Distributed Systems DEA, University of Nice - Sophia Antipolis, France, 2000.
- Courses in physics in some Lebanese high schools, 1997.

Postdocs/Engineers

- *Damien Saucez*: Postdoc INRIA from Oct 2011 to April 2013. Co-supervised with Thierry Turletti. Research on Content-Centric Networking. Graduated from UCL-Belgium.
- *Amir Krifa*: Expert Engineer starting from May 2008. Main focus on the Expeshare and ECODE European Projects. Graduated from ENSI-Tunis.
- *Roberto Cascella*: Postdoc INRIA from Jan 2009 to Jan 2011. Main focus on network troubleshooting by collaborative active monitoring. Graduated from the University of Trento. Now with INRIA Rennes.
- *Thrasylvoulos Spyropoulos*: Postdoc INRIA from Sep 2006 to Aug 2007. Co-supervised with Thierry Turletti. Main focus on Delay Tolerant Networks. Graduated from USC. Now with ETH Zurich.

- *Anwar Al Hamra*: Postdoc INRIA from Jul 2006 to Jul 2007. Co-supervised with Arnaud Legout. Main focus on the structure of P2P networks. Graduated from Eurecom. Now with the Hariri Canadian University - Lebanon.

PhD students

- *Anshuman Kalla*: Co-supervised with Walid Dabbous and Thierry Turletti. Started in October 2011. Thesis title: Efficient Transmission Mechanisms for Information Centric Network Architectures.
- *Amir Krifa*: Graduated in April 2012. Thesis title: Towards better content dissemination applications for Disruption Tolerant Networks.
- *Imed Lassoued*: Graduated in December 2011. Now with OneAccess/UDcast. Thesis title: Adaptive Monitoring and Management of Internet Traffic.
- *Karim Sbai*: Co-supervised with Walid Dabbous. Graduated in October 2010. Thesis title: Architecture for data sharing in mobile wireless networks. Now with Telecom Bretagne.
- *Mohamad Jaber*: Co-supervised with Philippe Nain. Graduated in October 2011. Thesis title: Internet traffic profiling and identification. Now with ENS Lyon.
- *Mohamad Malli*: Co-supervised with Walid Dabbous. Graduated in September 2006. Thesis title: Revisiting Internet Topology: Application-Centric Approach.
- *Victor Ramos*: Co-supervised with Eitan Altman. Graduated in December 2004. Now head of the Electrical Engineering Department of the Metropolitan Autonomous University-Iztapalapa in Mexico City. Thesis title: Reliable and robust transmission of multimedia contents over the Internet.
- *Rares Serban*: Co-supervised with Walid Dabbous. Graduated in September 2003. Now with 3iL Engineering School, Rodez, France. Thesis title: Dynamic IP QoS management.

PhD committee participation

- John Whitbeck, Université Pierre et Marie Curie, June 2012, Title: Mobile Opportunistic Networks: Visualization, Modeling, and Application to Data Offloading.
- Sofiane Hassayoun, Telecom Bretagne, June 2011, Title: Synchronization of TCP Packet Losses: Evaluation and Application to Multipath Congestion Control.
- Jong Gun Lee, UPMC-Paris 6, March 2011, Title: User Behavior Modeling of Content Generation and Consumption in Online Social Networks.
- Maria Rita Palattella, Politecnico Di Bari, February 2011, Title: Wireless Personal Area Networks: Advanced Modelling and Design.
- Chi-Anh LA, Eurecom and Paris Tech, October 2010, Title: Content Replication in Mobile Wireless Networks.
- Richard Gass, UPMC-Paris 6 and Intel, June 2010, Title: In-Motion Networking: Enabling Network Services to Users on the Move.
- Fernando Silveira, UPMC-Paris 6 and Technicolor, May 2010, Title: Unsupervised Diagnosis of Network Anomalies.
- Ali Mahmino, INP Toulouse, November 2009, Title: Application du Codage Réseau aux Architectures à Garanties de Qualité de Service (QoS).
- Amine Dhraief, Telecom Bretagne, September 2009, Title: Mobility and Multihoming Convergence.
- Alaeddine El Fawal, EPFL Lausanne, April 2009, Title: On uncoordinated wireless ad-hoc networks: data dissemination over WIFI and cross-layer optimization for ultra wide band impulse radio.

- Mehdi Nafa, University of Evry-Val-d'Essonne, March 2009, Title: Optimisation des applications de streaming peer to peer pour des réseaux ad hoc mobiles.
- Dino Lopez Pacheco, ENS-Lyon, June 2008, Title: Propositions for a robust and inter-operable eXplicit Control Protocol on Heterogeneous High Speed Networks.
- Guillaume Jourjon, University of New South Wales and the ENSICA-Toulouse, January 2008, Title: Towards a Versatile Transport Protocol.
- Ibtissam El Khayat, University of Liege, April 2005, Title: Techniques d'apprentissage dans le contrôle de congestion: Amélioration de TCP et conception de protocoles multipoints, dans les réseaux filaires et hybrides.
- Niels Moller, KTH Stockholm, 2005, Title: Automatic control in TCP over wireless.

Trainees

- *Riccardo Ravaoli*: Is the Internet neutral or content-aware? Handling the question by measurements, 2012, Master Ubinet, France.
- *Tessema Mindaye*: Increasing the space of applications for statistical traffic classification methods, 2012, Master Ubinet, France.
- *Francisco Santos*: Content management in mobile wireless networks, 2012, Master EPFL, Switzerland.
- *Mauricio JOST*: Monitoring the Quality of Internet Access by Active Probing, 2011, Master Ubinet, France.
- *Cao Cuong NGO*: Internet Monitoring via active probes on Planetlab, 2009, Master of IFI, Vietnam.
- *Emna Salhi*: Content lookup in wireless networks, 2008, Diplôme d'Ingénieur en Informatique, ENSI, Tunis.
- *Amir Krifa*: Realistic Simulation of Delay Tolerant Networks, 2007, Diplôme d'Ingénieur en Informatique, ENSI, Tunis.
- *Mouna Abdelmoumen*: Support of transport functionalities in Delay Tolerant Networks, 2006-07, Engineer in Telecommunications, SupCom, Tunis.
- *Karim Sbai*: Collecting Information from a large number of network entities, 2006, Diplôme d'Ingénieur en Informatique, ENSI, Tunis.
- *Niels Moller*: Analysis of TCP Westwood+, 2006, PhD student at KTH, Sweden. *Roman Hangartner*: Design and analysis of protocols for multimedia applications over P2P networks, 2004, engineering and master degree of EPFL, Lausanne.
- *Gion-Reto Cantieni*: Analysis of the MAC layer in 802.11 WLAN, engineering degree of EPFL, Lausanne.
- *Raja Abdelmoumen*: Study of a link-level FEC/ARQ scheme for wireless links and short-lived TCP traffic, 2003, Diplôme d'Ingénieur en Informatique, ENSI, Tunis.
- *Alaeddine Al Fawal*: Study of a link-level FEC/ARQ scheme for long-lived TCP traffic, 2002, Networking and Telecommunications DEA, Lebanese University - Saint Joseph University, Lebanon.
- *Sekou Sidibe*: Analysis of TCP/IP over asymmetric satellite links, 1999, Master of the French National Institute for Telecommunications (INT), Evry, France.
- *Emmanuel Laborde*: Markovian analysis of TCP/IP, 1999, DEA of the University of Paris VI, France.
- *Victor Ramos*: Queuing analysis of simple FEC schemes for IP Telephony, 2000, Networking and Distributed Systems DEA, University of Nice Sophia-Antipolis, France.

Chadi BARAKAT

List of publications

EDITED JOURNALS AND BOOKS, BOOK CHAPTERS, EDITORIALS

1. Eitan Altman, Konstantin Avrachenkov, Chadi Barakat, Kartikeya Chandrayana, "A Multilevel Approach for the Modelling of Large TCP/IP Networks", Chapter 4 in "Recent Advances in Modeling and Simulation Tools for Communication Networks and Services" published by Springer, September 2007.
2. Chadi Barakat, Gianluca Iannaccone, Jim Kurose, Darryl Veitch, "Sampling the Internet: techniques and applications", IEEE Journal of Selected Areas in Communications, vol. 24, no. 12, December 2006.
3. Chadi Barakat, "Evaluation des performances des réseaux WIFI 802.11", Techniques de l'Ingénieur, Lettre réseaux sans fil, Numéro Novembre-Décembre 2006.
4. Chadi Barakat, Ian Pratt: Passive and Active Network Measurement, 5th International Workshop, PAM 2004, Antibes Juan-les-Pins, France, April 19-20, 2004, Proceedings. Lecture Notes in Computer Science 3015 Springer 2004, ISBN 3-540-21492-5.

INTERNATIONAL JOURNALS

1. Amir Krifa, Chadi Barakat, Thrasyvoulos Spyropoulos, "Message Drop and Scheduling in DTNs: Theory and Practice", to appear in IEEE Transactions on Mobile Computing.
2. Luigi Alfredo Grieco, Chadi Barakat, Michele Marzulli, "Spectral Models for Bitrate Measurement from Packet Sampled Traffic", in IEEE Transactions on Network and Service Management, vol. 8, no. 2, June 2011.
3. Karim Sbai and Chadi Barakat, "Experiences on enhancing data collection in large networks", in Computer Networks, vol. 53, no. 7, pp. 1073-1086, May 2009.
4. Mohammad Malli, Chadi Barakat, Walid Dabbous, "CHESS: An application-aware space for enhanced scalable services in overlay networks", in Computer Communications Journal, vol. 31, no. 6, pp. 1239-1253, April 2008.
5. T. Tansupasiri, K. Kanchanasut, Chadi Barakat, Philippe Jacquet, "Using Active Networks Technology for Dynamic QoS", in Computer Networks Journal, vol. 50, no. 11, pp. 1692-1709, August 2006.
6. Chadi Barakat, Mohammad Malli, Naomichi Nonaka, "TICP: Transport Information Collection Protocol", in Annals of Telecommunications, vol. 61, no. 1-2, pp. 167-192, 2006.
7. Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Arzad-Alam Kherani, Balakrishna Prabhu, "Analysis of MIMD Congestion Control Algorithm for High Speed Networks", in Computer Networks Journal, vol. 48, no. 6, pp. 972-989, August 2005.
8. Eitan Altman, Chadi Barakat, Victor M. Ramos R., "Analysis of AIMD protocols over paths with variable delay", in Computer Networks Journal, vol. 48, no. 6, pp. 960-971, August 2005.
9. Imad Aad, Qiang Ni, Chadi Barakat, Thierry Turletti, "Enhancing IEEE 802.11 MAC in Congested Environments", in Computer Communications Journal, vol. 28, no. 14, pp. 1605-1617, September 2005.
10. Gion Reto Cantieni, Qiang Ni, Chadi Barakat, Thierry Turletti, "Performance Analysis under Finite Load and Improvements for Multirate 802.11", in Computer Communications Journal, special issue on Performance of Wireless LANs, PANs, and Ad Hoc Networks, vol. 28, no. 10, pp. 1095-1109, June 2005.

11. Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "A Stochastic Model of TCP/IP with Stationary Random Losses", in *IEEE/ACM Transactions on Networking*, vol. 13, no. 2, pp. 356-369, April 2005.
12. Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Parijat Dube, "Performance Analysis of AIMD Mechanisms over a Multi-state Markovian Path", in *Computer Networks Journal*, vol. 47, no. 3, pp. 307-326, February 2005.
13. Antonio Nucci, Nina Taft, Chadi Barakat, Patrick Thiran, "Controlled Use of Excess Backbone Bandwidth for Providing New Services in IP-over-WDM Networks", in *IEEE Journal on Selected Areas in Communications*, vol. 22, no. 9, pp. 1692-1707, November 2004.
14. Chadi Barakat, Alaeddine Al Fawal, "Analysis of link-level hybrid FEC/ARQ-SR for wireless links and long-lived TCP traffic", in *Performance Evaluation Journal*, vol. 57, no. 4, pp. 423-500, August 2004.
15. Chadi Barakat, Eitan Altman, "A Markovian Model for TCP Analysis in a Differentiated Services Network", in *Telecommunication Systems*, vol. 25, no. 1,2, pp. 129-155, January 2004.
16. Sara Alouf, Eitan Altman, Chadi Barakat, Philippe Nain, "Optimal Estimation of Multicast Membership", in *IEEE Transactions on Signal Processing - Special Issue on Signal Processing in Networking*, vol. 51, no. 8, August 2003.
17. Chadi Barakat, Patrick Thiran, Gianluca Iannaccone, Christophe Diot, Philippe Owezarski, "Modeling Internet backbone traffic at the flow level", in *IEEE Transactions on Signal Processing - Special Issue on Signal Processing in Networking*, vol. 51, no. 8, August 2003.
18. Chadi Barakat, Eitan Altman, "On ACK filtering on a slow reverse channel", in *International Journal of Satellite Communications*, vol. 21, pp. 241-258, 2003.
19. Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Rudesindo Núñez-Queija, "State-dependent M/G/1 type queueing analysis for congestion control in data networks", in *Computer Networks Journal*, vol. 39, no. 6, pp. 789-808, August 2002.
20. Eitan Altman, Chadi Barakat, Victor Ramos, "Queueing analysis of simple FEC schemes for voice over IP", *Computer Networks*, vol. 39, no. 2, pp. 185-206, June 2002.
21. Chadi Barakat, Eitan Altman, "Bandwidth tradeoff between TCP and link-level FEC", in *Computer Networks Journal*, vol. 39, no. 2, pp. 133-150, June 2002.
22. Chadi Barakat, "TCP modeling and validation", in *IEEE Network*, vol. 15, no. 3, pp. 38-47, May 2001.
23. Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "TCP in presence of bursty losses", in *Performance Evaluation*, vol. 42, no. 2-3, pp. 129-147, October 2000.
24. Chadi Barakat, Eitan Altman, Walid Dabbous, "On TCP Performance in a Heterogeneous Network : A Survey", in *IEEE Communication Magazine*, vol. 38, no. 1, pp. 40-46, January 2000. A more detailed version: INRIA Research Report RR-3737, July 1999.

INTERNATIONAL CONFERENCES

1. Mohamad Jaber, Roberto Cascella, Chadi Barakat, "Using host profiling to refine statistical application identification", in proceedings of IEEE INFOCOM Mini-Conference, Orlando, FL, March 2012.
2. Ashwin Rao, Yeon-sup Lim, Chadi Barakat, Arnaud Legout, Don Towsley, Walid Dabbous, "Network Characteristics of Video Streaming Traffic", in proceedings of ACM CoNEXT, Tokyo, Japan, December 2011.
3. Amir Krifa, Chadi Barakat, Thrasyvoulos Spyropoulos, "MobiTrade: Trading Content in Disruption Tolerant Networks", in proceedings of ACM Mobicom Workshop on Challenged Networks (CHANTS), Las Vegas, September 2011.

4. Imed Lassoued, Chadi Barakat, "A Multi-task Adaptive Monitoring System Combining Different Sampling Primitives", in proceedings of the 23rd International Teletraffic Congress (ITC), San Francisco, September 2011.
5. Rosa Vilardi, Luigi Alfredo Grieco, Gennaro Boggia, Chadi Barakat, "Adaptation of Real-time Temporal Resolution for Bitrate Estimates in IPFIX Systems", in proceedings of the 2nd International Workshop on TRAFFIC Analysis and Classification TRAC 2011, Istanbul, July 2011.
6. Mohamad Jaber, Roberto Cascella, Chadi Barakat, "Boosting statistical application identification by flow correlation", in proceedings of EuroNF-TCCFI (International Workshop on Traffic and Congestion Control for the Future Internet), Greece, April 2011.
7. Mohamad Jaber, Roberto Cascella, Chadi Barakat, "'Can we trust the inter-packet time for traffic classification?", in proceedings of IEEE International Conference on Communications (ICC), Kyoto, Japan, June 2011.
8. Imed Lassoued, Amir Krifa, Chadi Barakat, Konstantin Avrachenkov, "Network-wide monitoring through self-configuring adaptive system", in proceedings of IEEE INFOCOM, Shanghai, China, April 2011.
9. Imed Lassoued and Chadi Barakat, "Adaptive Multi-Task Monitoring System Based on Overhead Prediction", in proceedings of the ACM CoNEXT Workshop on Programmable Routers for Extensible Services of Tomorrow, Philadelphia (PA), November 2010.
10. Roberto Cascella and Chadi Barakat, "Estimating the access link quality by active measurements", in proceedings of the 22nd International Teletraffic Congress (ITC 22), Amsterdam, Netherlands, September 2010.
11. Amir Krifa, Imed Lassoued, Chadi Barakat, "Emulation Platform for Network Wide Traffic Sampling and Monitoring", in proceedings of the 1st International Workshop on TRAFFIC Analysis and Classification (TRAC), Caen, France, June 2010.
12. Mohamad Jaber, Cao-Cuong Ngo, Chadi Barakat, "A view from inside a distributed Internet coordinate system", in proceedings of the Global Internet Symposium at IEEE Infocom, San Diego, March 2010.
13. Karim Sbai, Emna Salhi, Chadi Barakat, "P2P content sharing in spontaneous multi-hop wireless networks", in proceedings of the IEEE COMSNETS conference, Bangalore, January 2010.
14. Luigi Alfredo Grieco and Chadi Barakat, "A Frequency Domain Model to Predict the Estimation Accuracy of Packet Sampling", in proceedings of the IEEE Infocom MiniConference, San Diego, CA, March 2010.
15. Karim SBAI, Chadi BARAKAT, "Revisiting content sharing in wireless ad hoc networks", in proceedings of the fourth workshop on self-organizing systems (IWSOS), Zurich, December 2009.
16. Karim Sbai, Emna Salhi, Chadi Barakat, "A membership management protocol for mobile P2P networks", in proceedings of the ACM Mobility Conference, Nice, September 2009.
17. Luigi Alfredo Grieco and Chadi Barakat, "An Analysis of Packet Sampling in the Frequency Domain", in proceedings of the ACM Internet Measurement Conference (IMC), Chicago, November 2009.
18. Mohamed Ali Kaafar, Laurent Mathy, Chadi Barakat, Kave Salamatian, Thierry Turlletti, Walid Dabbous, "Certified Internet Coordinates", in proceedings of IEEE ICCCN conference, San Francisco, August 2009.
19. Anwar Al-Hamra, Nikitas Liogkas, Arnaud Legout, Chadi Barakat, "Swarming Overlay Construction Strategies", in proceedings of IEEE ICCCN conference, San Francisco, August 2009.
20. Emna Salhi, Karim Sbai, Chadi Barakat, "Neighborhood selection in mobile P2P networks", in proceedings of the 11th Algotel conference, Carry-Le-Rouet, France, June 2009.
21. Mohamad Jaber and Chadi Barakat, "Enhancing Application Identification By Means Of Sequential Testing", in proceedings of IFIP/TC6 Networking Conference, Aechan, Germany, May 2009.

22. Karim Sbai, Chadi Barakat, Jaeyoung Choi, Anwar Al Hamra, Thierry Turletti, "Adapting BitTorrent to wireless ad hoc networks", in proceedings of the AdHoc-Now Networks and Wireless conference, Sophia Antipolis, September 2008.
23. Amir Krifa, Chadi Barakat, Thrasyvoulos Spyropoulos, "An Optimal Joint Scheduling and Drop Policy for Delay Tolerant Networks", in proceedings of the WoWMoM Workshop on Autonomic and Opportunistic Communications, Newport Beach (CA), June 2008.
24. Amir Krifa, Chadi Barakat, Thrasyvoulos Spyropoulos, "Optimal Buffer Management Policies for Delay Tolerant Networks", in proceedings of the 5th IEEE Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON 2008), San Francisco, June 2008. **Best Paper.**
25. Mohamed Ali Kaafar, Laurent Mathy, Chadi Barakat, Kave Salamatian, Thierry Turletti, Walid Dabbous, "Securing Internet Coordinate Embedding Systems", in proceedings of ACM SIGCOMM, Kyoto, Japan, August 2007.
26. Niels Moller, Chadi Barakat, Konstantin Avrachenkov, Eitan Altman, "Inter-protocol fairness between TCP New Reno and TCP Westwood+", in proceedings of NGI 2007 (Conference on Next Generation Internet Networks), Trondheim, Norway, May 2007.
27. Karim SBAI, Chadi BARAKAT, "Transport Information Collection Protocol with clustering of information sources", in proceedings of NTMS 2007 (Conference on New Technologies, Mobility and Security), Paris, May 2007.
28. G. Boggia, P. Camarda, A. D'Alconzo, L.A. Grieco, S. Mascolo, E. Altman, C. Barakat, "Modeling the AIADD Paradigm in Networks with Variable Delays", in proceedings of CoNEXT, Lisboa, Portugal, December 2006.
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