Chadi Barakat

PhD and HDR in Computer Science Master of Electrical and Electronic Engineering

Birth : June 19th, 1974, Saïda (Lebanon)

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1. Experience

- 01/24 present: Research Director 1st class (DR1), Diana Project-Team, Inria centre at Université Côte d'Azur, France.
- 10/18 12/23: Research Director 2nd class (DR2), Diana Project-Team, Inria centre at Université Côte d'Azur, France.
- 03/04 09/18: Associate Researcher 1^{st} class (CR1), Planète and Diana Project-Teams, Inria Sophia Antipolis Méditerranée, France.
- 03/04 08/04: Visiting Faculty, Intel Research Cambridge, UK.
- 03/02 02/04: Associate Researcher 2nd class, Planète Project-Team, Inria Sophia Antipolis Méditerranée, France.
- 05/01 03/02: Postdoctoral fellow, LCA FIC EPFL, Lausanne, Switzerland.
- 09/98 05/01: PhD candidate, Mistral project-team, Inria, France.
- 03/98 07/98: Intern, networking department, ENST-Paris, France.

2. 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. 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: Master of Electrical and Electronic Engineering, Lebanese University, Beirut, Lebanon.
- 3. Research interests Internet measurements and traffic analysis, user quality of experience and network transparency, new network architectures (5G and beyond, Information-Centric Networking and Software-Defined Networking), performance evaluation of computer networks.

4. Awards and distinctions

- Senior member of the IEEE (2010) and the ACM (2018).
- Second best PhD thesis in Computer Science defended in 2021 at University Côte d'Azur for my student Othmane Belmoukadam.
- Best paper award for our paper "From Encrypted Video Traces to Viewport Classification", 16th International Conference on Network and Service Management (CNSM), Virtual Conference, November 2020.
- Best student paper award for our paper "On the Cost of Measuring Traffic in a Virtualized Environment", 7th IEEE International Conference on Cloud Networking (CloudNet), Tokyo, October 2018.
- Best paper award for our paper "Optimal Buffer Management Policies for Delay Tolerant Networks", 5th Annual IEEE Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON), 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 (QofIS), Berlin, September 2000.
- Hariri foundation award, top-100 students funded by the foundation in Lebanon and abroad, five times from 1993 to 1997.

5. Research projects

Current projects

- Monitoring plane for mobile cellular networks. Supported by the PEPR national project on 5G networks and networks of the future.
- Monitoring of virtualized networks with application to reproducible network experimentation. Supported by PEPR 5G.
- Geolocation assessment of mobile network performance, in collaboration with YDATA. Supported by an ANRT CIFRE grant.
- WEMON: Network monitoring and troubleshooting from within the browser. Supported by the Academy of Excellence "Networks, Information and Digital Society" of Université Côte d'Azur.
- ACQUA: Monitoring Internet access and Quality of User Experience. Previously supported by Inria ADT ACQUA, Inria IPL BetterNet and ANR BottleNet.

Past projects

- Offloading mobile networks by content caching in vehicles. Collaboration with Eurecom supported by Labex UCN@SOPHIA.
- ChkDiff: Checking Traffic Differentiation at Internet access. Collaboration with I3S supported by Labex UCN@SOPHIA.
- Content-centric communications in mobile wireless networks. Supported by the ITEA Expeshare and the ANR CONNECT projects.
- Adaptive traffic sampling. Supported by the FP7 ECODE project.
- Internet traffic classification and host profiling. Supported by the ANR CMON project.
- BitHoc: Content sharing in mobile wireless networks. Supported by the ITEA Expeshare project.
- Understanding the properties of the BitTorrent Overlay. Supported by the ANR OSCAR project.
- Scalable solutions for data collection. Supported by Hitachi Europe.
- Performance evaluation of congestion control in the Internet.

6. Professional activities

Journals

- Associate editor for the Computer Networks journal (2012-present).
- Guest editor for a JSAC special on Sampling the Internet: Techniques and Applications (2006).
- Area editor for ACM Computer Communication Review (CCR), 2005-2010.
- Regular referee for main international journals: Transactions on Networking, Transactions on Multimedia, Transactions on Wireless Communications, JSAC, Performance Evaluation, IEEE Networks, Communication Magazine, ACM CCR, Computer Networks, Computer Communications,

Conferences

- General Co-Chair for ACM IMC 2022, Nice, France.
- Workshop Co-Chair for ACM CoNEXT 2018, Greece.
- Poster Co-Chair for ACM Internet Measurement Conference 2017, London.
- Publicity Co-Chair for ACM SIGCOMM 2015, London.
- General Co-Chair for ACM CoNEXT 2012, Nice.
- Co-organizer of the francophone summer school ResCom 2007.
- 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).
- Technical Program Committee member for IEEE INFOCOM conference (2004, 2005, 2009, 2010, 2011), ACM Internet Measurement Conference (IMC) (2005, 2010, 2017, 2024), ACM CoNEXT conference (2006, 2011, 2016), Passive and Active Measurement (PAM) conference (2004, 2005, 2013, 2016, 2022), Network Traffic Measurement and Analysis (TMA) Conference (2013, 2015, 2019, 2020, 2021, 2022, 2023, 2024), IEEE ICNP conference (2002, 2005), IEEE SECON conference (2007), IFIP Conference on Network and Service Management (CNSM) (2012, 2019, 2020, 2021), Mediterranean Communication and Computer Networking Conference (MedComNet) (2021, 2022, 2023, 2024), International Teletraffic Congress (ITC) (2009, 2017, 2021, 2022, 2023), ACM SIGCOMM Posters and Demos (2015, 2018), ACM MECOMM Workshop (2018), ACM MobiArch Workshop (2023), MaleNe Workshop (2021), NetLearn Workshop (2020), IEEE Symposium on Measurements and Networking M&N (2017, 2019), AINTEC (2016), IEEE ICCCN (2011), IEEE Comsnets (2010), NSTools (2007, 2009), Algotel (2009, 2016), BroadNets (2008), WNS2 (2008), WinMee (2006, 2008), PFLDnet (2008), WWIC (2006, 2007), IEEE/ACM IWQoS (2006), IFIP WONS (2005, 2006), ASWN (2004), GI&NGN symposium at IEEE Globecom (2004), ASIAN (2002).
- Session chair at ACM IMC 2017 (London), ICCIT 2013 (Beirut), IMC 2011 (Berlin), IMC 2005 (Berkeley), WiOpt 2003 (Sophia Antipolis), ICNP 2002 (Paris).

Inria

- Scientific correspondent and referee for international affairs at Inria Centre at Université Côte d'Azur (2011-present).
- Member of the working group International Affairs of the Conseil d'Orientation Scientifique et Technologique (COST-GTRI) at Inria (2011-2019).

- Member of the CUMIR committee at Inria Sophia-Antipolis (Commission des Utilisateurs des Moyens Informatiques), 2010 2014.
- Member of the evaluation board of the LIRIMA Laboratory, September 2014.
- Jury member for the hiring of two Chargés des Relations Internationales in 2012 and one Chargé d'Affaires Juridiques in 2013.
- (Co)Organizer of Mistral seminars (1999-2001), of Planète seminars (2003 2012), of "seminar croisé Réseau" (October 2003) and of Inria ComB evaluation seminar (November 2007).

Other administrations

- Member of the organizing committee for the Forum Numerica seminars of University Côte d'Azur (2018).
- Co-organizer of the Mediterranean Students Days @ Campus SophiaTech (2013-present). All details on this event can be found at http://univ-cotedazur.fr/events/meddays.
- 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.
- Expert for the ANR-DGA ASTRID program (2013).
- Expert for two companies at Sophia Antipolis for their Crédit D'Impôt Recherche.
- Expert for the review of four European running projects and three panels.

7. Talks

Invited talks

- Bridging the gap between network measurements and quality of experience: the video streaming case, Workshop on Systems, Inria Rennes, October 2021.
- From network-level measurements to quality of experience: Estimating the quality of Internet applications with ACQUA,
 - (i) Journée du Conseil Scientifique de l'Afnic, Paris, July 2015.
 - (i) Panel, Inria Telecom Industry Day, Paris, November 2014.
 - (ii) Metroscope Day, Paris, October 2014.
- Traffic differentiation at the Internet access, Journée Labex and Com4Innov, Sophia Antipolis, September 2015.
- Modern HTTP traffic: One day in the life of a university campus network, Metroscope Day, Paris, July 2013.
- Minimizing Bandwidth on Peering Links with Deflection in Named Data Networking, ICCIT conference, Lebanon, June 2013.
- Scalable measurements of Internet access and traffic, Metroscope Day, Paris, April 2012.
- Message Drop and Scheduling in DTNs: Theory and Practice,
 - (i) Ecole francophone CFIP, Sainte Maxime, May 2011,
 - (ii) Univ Calitornia Santa Cruz, July 2010,
 - (iii) Brunel Univ, London, April 2008.

- Monitoring of Internet traffic and applications,
 - (i) ETH, Zurich, October 2009,
 - (ii) Inria Alcatel Lucent Workshop, June 2009.
- Multilevel approach for the modeling of large TCP/IP networks, COST 285 final symposium, Surrey UK, 2007
- Issues related to the modelling of the TCP protocol,
 - (i) E-next school, Louvain-La-Neuve, November 2005,
 - (ii) Ecole ING (Internet Nouvelle Génération) du CNRS, Porquerolles, May 2003.
- Scalable solutions for information collection, KTH, Stockholm, September 2005.
- Internet topology inference, Asian school, Bangkok, 2005.
- Ranking flows from sampled traffic, MIT, UMASS and Boston University, October 2004.
- $\bullet\,$ Five seminars on different topics at ENSI, Tunis, 2003 2007.
- Analysis of TCP over wireless links implementing link-level hybrid FEC/ARQ-SR for error recovery, Intel Research Cambridge, 2004.
- Performance Analysis of Finite Load Sources in 802.11b Multirate Environments, Ecole Normale Supérieure, Paris, 2003.
- On TCP performance in heterogeneous networks, Summer Research Institute, EPFL, Lausanne, July 2002.
- Performance evaluation of TCP congestion control, IBM Zurich, 2001.

Paper presentation at the following international conferences: IFIP Networking 2014 (Trondheim), ACM MSWIM 2013 (Barcelona), ACM IMC 2009 (Chicago), IEEE SECON 2008 (San Francisco), ACM CONEXT 2006 (Lisboa), ACM CONEXT 2005 (Toulouse), WiOpt 2003 (Paris), PFLDnet 2003 (Geneva), ACM IMW 2002 (Marseille), ICN 2001 (Colmar), IEEE INFOCOM 2001 (Alaska), QofIS 2000 (Berlin), ACM SIGCOMM 2000 (Stockholm), ACM SIGMETRICS 2000 (Santa Clara), IFIP NETWORKING 2000 (Paris), IEEE GLOBECOM 1999 (Rio).

8. Collaborative projects

- CIFRE grant with YDATA on geolocation assessment of mobile network performance (2021-2024).
- Inria Project Lab BetterNet (2016-2020).
- ANR BottleNet French project led by Inria (2016-2021).
- ANR CMON French project led by Thomson (2009-2012).
- ECODE STREP European project led by Alcatel-Lucent Belgium (2009-2012).
- Expeshare ITEA European project involving over 40 partners (Nokia, Philips, VTT, Siemens, Telefonica, etc) (2007-2009).
- RNRT OSCAR French project led by FranceTelecom and involving Mitsubishi (2006-2008).
- A visit of six months to Intel Research Cambridge (2004).
- A contract 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 network dimensioning (2001-2002).

9. Software

- ACQUA: AppliCation to estimate and predict Quality of User experience at Internet Access.
- CEDO: Content-Centric Dissemination Algorithm for Delay-Tolerant Networks.
- 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.

10. Teaching activities

Open courses

- Evolving Internet, 12 hours, Master 2 Ubinet, Université Côte d'Azur, 2008-present.
- Internet Measurement and New Architectures, 9 hours, Master 2 Ubinet, Université Côte d'Azur, 2008-present.
- Voice over IP and adaptive multimedia applications, 6 hours, Master ESTEL (ex-TSM), Université Côte d'Azur, 2007-present.
- Computer Networks, 12 hours, Master 1 in Computer Science, Université Côte d'Azur, 2018-present.
- Internet of the Future, 12 hours, Master 1 in Computer Science, Université Côte d'Azur, 2018-present.

Past courses

- Algorithms for Networks, 18 hours, Master 1 International in Computer Science, University of Nice Sophia Antipolis, 2013-2018.
- Internet Measurement and Traffic Analysis,
 - (i) Networking and Distributed Systems DEA at the University of Nice Sophia Antipolis, 15 hours, 2004-2007,
 - (ii) Master RIM, ENSI, Tunis, 15 hours, 2003-2007,
 - (iii) Open lecture, AIT Thailand, 15 hours, 2003 and 2005,
 - (iv) Master Telecom ParisTech, 3 hours, 2009-2013,
 - (iv) Open lecture, ETH, Zurich, 2 hours, 2009.
- Mobile Wireless Networking, 7 hours, Master RISM (ex-RTM), IUP Avignon, 2009-2015.
- Overview of Information Centric Networking, Master Telecom ParisTech, 3 hours, 2014.
- Voice over IP, 7 hours,
 - (i) Ecole d'Ingénieur Internet, Marseille, 2003,
 - (ii) Master RTM, IUP Avignon, 2008.
- TCP/IP architecture and protocols, 20 hours, Licence Professionnelle LPSIL, IUT of Nice, 2006-2008.
- Local area networks, 21 hours + 10 hours practical work, IUT of Sophia Antipolis, 2007-2012.
- Inference of Internet Topology, 7 hours, Master RTM, IUP Avignon, 2006-2008.
- TCP/IP architecture and protocols, 6 hours, Maîtrise Informatique, University of Nice Sophia Antipolis, 2003.

- Ns-2, the Network Simulator, 7 hours,
 - (i) Networking and Distributed Systems DEA, University of Nice Sophia Antipolis, 2001-2003,
 - (ii) Master RTM, IUP Avignon, 2008.
- Internet over Satellites, 6 hours, Networking and Distributed Systems DEA, University of Nice Sophia Antipolis, 2000.
- Classes on Performance Evaluation in Networking, 6 hours, Institut Eurecom, Sophia Antipolis, 2003.
- Classes on Networking, Doctoral School, DSC-EPFL, Lausanne, Switzerland, 2001.

11. Supervised Postdocs/Engineers

- Sanaa Ghandi: Postdoc from January 2024 to December 2024. Funded by Academy DS4H of Université Côte d'Azur. Research topics on network monitoring and troubleshooting from within the browser: a data-driven approach. Graduated from IMT Atlantique.
- Giulio Grassi: Postdoc from October 2018 to June 2020. Funded by Inria within the Project Lab Better-Net. Research topic on cross-data analysis for a better network monitoring and troubleshooting. Graduated from Pierre et Marie Curie University. Now with Cisco Systems France.
- Thierry Spetebroot: Expert Engineer from October 2015 to March 2018. Funded by Inria within ADT ACQUA. Implementation of the ACQUA Android Application. Graduated from Master Ubinet, France. Now with Amadeus.
- Byungchul Park: Postdoc from October 2012 to April 2014. Funded by Inria. Research topic on measurements for Content-Centric Networks. Graduated from POSTECH, Korea. Now with University of Toronto, Canada.
- Damien Saucez: Postdoc from October 2011 to April 2013. Funded by Inria. Co-supervised with Thierry Turletti. Research topic on Content-Centric Networking. Graduated from UCL-Belgium. Now with Inria.
- Amir Krifa: Expert Engineer from May 2008 to June 2011. Funded by the ITEA Expeshare and the FP7 ECODE projects. Graduated from ENSI-Tunis. Now Senior Manager Data Science at EY.
- Roberto Cascella: Postdoc from January 2009 to January 2011. Funded by ANR C'MON. Research topic on network troubleshooting by collaborative active monitoring. Graduated from the University of Trento. Now Senior Policy Manager at European Cyber Security Organisation (ECSO).
- Thrasyvoulos Spyropoulos: Postdoc from September 2006 to Aug 2007. Co-supervised with Thierry Turletti. Research topic on Delay Tolerant Networks. Graduated from USC. Now with Eurecom.
- Anwar Al Hamra: Postdoc from July 2006 to July 2007. Funded by the ANR OSCAR project. Cosupervised with Arnaud Legout. Research topic on the structure of P2P networks. Graduated from Eurecom. Now modeling engineer at the ministry of transport and communications, Doha, Qatar.

12. Supervised PhD students

- Bernard Tamba Sandouno: Co-supervised with Thierry Turletti and Walid Dabbous. Started in May 2021. Funded by ANRT CIFRE. Thesis title: Geolocation assessment model of mobile network performance.
- Houssam ElBouanani: Co-supervised with Thierry Turletti and Walid Dabbous. Started in December 2019. Graduated in March 2023. Funded by H2020 Fed4Fire+. Thesis title: Introducing Fidelity into Network Emulation.
- Othmane Belmoukadam: Started in October 2018. Graduated in September 2021. Funded by the University of Nice Sophia Antipolis and the Université Côte d'Azur. Thesis title: QoE aware content management in the Internet: caching and transport.

- Imane Taibi: Co-supervised with Gerardo Rubino and Yassine Hadjadj-Aoul. Started in November 2017. Graduated in September 2022. Funded by Inria Project Lab BetterNet. Thesis title: Web-based data driven network monitoring: from performance estimation to anomaly detection.
- Karyna Gogunska: Co-supervised with Guillaume Urvoy-Keller. Started in October 2016. Graduated in December 2019. Funded by the UCN@SOPHIA Labex. Thesis title: On the Cost of Measurements in Virtualized Networks.
- Jawad Khokhar: Started in September 2016. Graduated in October 2019. Funded by ANR BottleNet. Thesis title: Modeling QoE of Internet Applications by Controlled Experimentation and Machine Learning.
- Luigi Vigneri: Co-supervised with Thrasyvoulos Spyropoulos. Started in April 2014. Graduated in July 2017. Funded by the UCN@SOPHIA Labex. Thesis title: Vehicles as a Mobile Cloud: Leveraging mobility for content storage and dissemination.
- Riccardo Ravaioli: Co-supervised with Guillaume Urvoy-Keller. Started in October 2012. Graduated in July 2016. Funded by the UCN@SOPHIA Labex. Thesis title: Active and Passive Inference of Network Neutrality.
- Amir Krifa: Started in May 2008. Graduated in April 2012. Thesis title: Towards better content dissemination applications for Disruption Tolerant Networks.
- *Imed Lassoued*: Started in September 2008. Graduated in December 2011. Funded by the ECODE FP7 project. Thesis title: Adaptive Monitoring and Management of Internet Traffic.
- Karim Shai: Co-supervised with Walid Dabbous. Started in June 2007. Graduated in October 2010. Funded by the Expeshare project. Thesis title: Architecture for data sharing in mobile wireless networks.
- Mohamad Jaber: Co-supervised with Philippe Nain. Started in October 2007. Graduated in October 2011. Funded by the French ministry and supported by the CMON ANR project. Thesis title: Internet traffic profiling and identification.
- 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. Thesis title: Reliable and robust transmission of multimedia contents over the Internet.

13. HDR committee participation

• Kamal Singh, University Jean Monnet, University of Lyon, July 2022, Title: Towards Data Driven Intelligent Networks (Reviewer).

14. PhD committee participation

- Olga Chuchuk, Université Côte d'Azur and CERN, February 2024, Title: Data access optimisation at CERN and in the Worldwide LHC Computing Grid (WLCG) (President).
- Hina Qayyum, Macquarie University, Autralia, December 2023, Title: Exposing misconduct on free online platforms: A study of mobile apps, web games, and social networks (Reviewer).
- Philippe Graff, Université de Loraine, December 2023, Title: Characterization, in-network identification and optimization of low-latency traffic transport the case of Cloud-Gaming (Reviewer).
- Ziad Tlaiss, Mines-Telecom Atlantique Bretagne, December 2023, Title: Automated network packet traces analysis methods for fault recognition and TCP flavor identification (Reviewer).
- Matthieu Gouel, LIP6, Sorbonne Université, June 2023, Title: Internet-Scale Route Tracing Capture and Analysis (Reviewer).

- David Baldassin, Université Côte d'Azur and Cosmo Software, May 2023, Title: Design and Evaluation of New Transport Protocols for WebRTC (Mid-Term Jury Member).
- Ilias Driouich, Inria, Université Côte d'Azur and Amadeus, May 2023, Title: Privacy-Preserving Algorithms for Federated Learning (Mid-Term Jury Member).
- Thomas Favale, Politecnico di Torino, January 2023, Title: Strengthening Privacy and Cybersecurity through Anonymization and Big Data (Reviewer).
- Jin Yan, Eurecom, June 2022, Title: Realization of URLLC Services in 5G-NR Sidelink V2X (Mid-Term Jury Member).
- Olha Chuchuk, Inria, Université Côte d'Azur and CERN, April 2022, Title: Data access optimisation at CERN and in the Worldwide LHC Computing Grid (WLCG) (Mid-Term Jury Member).
- Duncan Deveaux, Eurecom, December 2021, Title: On the Networking of Knowledge in Vehicular Networks (Examiner).
- Ishani Sarkar, Université Côte d'Azur and EasyBroadcast, November 2021, Title: Data mining and optimisation of a multi-content hybrid P2P/Web distribution network (President).
- Raza Ul Mustafa, University of Campinas, Brazil, October 2021, Title: Machine Learning Assisted DASH QoE Inference Through Network Level QoS Features (Mid-Term Jury Member).
- Flavia Salutari, Telecom Paris, September 2021, Title: Longitudinal, large-scale and unbiased Internet measurements (Examiner).
- Loïck Bonniot, IRISA and Université de Rennes, June 2021, Title: Computer Network Modeling and Root Cause Analysis with Statistical Learning (Reviewer).
- Zhejiayu Ma, Université Côte d'Azur and EasyBroadcast, May 2021, Title: Machine learning in the context of WebRTC-based multimedia diffusion (Mid-Term Jury Member).
- Theodoros Giannakas, Eurecom, March 2020, Title: Joint Modeling and Optimization Caching and Recommendation Systems (Reviewer).
- Duncan Deveaux, Eurecom, January 2020, Title: Knowledge networking for next generation vehicular networks (Mid-Term Jury Member).
- Jingxiu SU, University Grenoble Alpes and Chinese Academy of Sciences, December 2019, Title: Recherches sur la mesure de l'analyse du tracking sur le Web (Reviewer).
- Lakhdar Meftah, University of Lille, December 2019, Title: Towards Privacy-sensitive Mobile Crowd-sourcing (Examiner).
- Mariem Ben Yahia, IMT-Atlantique, May 2019, Title: Low Latency Video Streaming Solutions based on HTTP/2 (Reviewer).
- Hamza Ben Ammar, University of Rennes, March 2019, Title: On Models for Performance Evaluation and Cache Resources Placement in Multi-Cache Networks (Reviewer).
- Antoine Saverimoutou, Orange Labs and IMT Atlantique, March 2019, Title: Métrologie de l'Internet du futur: Nouvelles métriques et méthodes de mesure de la qualité de navigation Web (Mid-Term Jury Member).
- Muhammad Ikram, University of New South Wales and Data61, April 2018, Title: Analysis and Design of Secure and Privacy Preserving Systems (Reviewer).
- Irfan Khan, Eurecom, October 2017 and September 2018, Title: Vehicular Communication for High Precision Cooperative Localization (Mid-Term Jury Member).

- Wenqin Shao, Telecom Paris, November 2017, Title: Measurement-based inter-domain traffic engineering: Scalability, data interpretation and network event visibility (Reviewer).
- Danilo Giordano, Politecnico di Torino, March 2017, Title: Machine Learning and Bigdata Methodologies for Network Traffic Monitoring (Reviewer).
- Panagiotis Matzakos, Eurecom, October 2016, Title: Scheduling and Congestion Management Policies for QoS Provision in Disruption Tolerant Networks (Reviewer).
- Quentin Jacquemart, Eurecom, October 2015, Title: Towards Uncovering BGP Hijacking Attacks (Reviewer).
- Florin Coras, Polytechnic University of Catalonia (UPC), July 2015, Title: On the Scalability of LISP and Advanced Overlaid Services (Reviewer).
- Pavlos Sermpezis, Eurecom, February 2015, Title: Performance Analysis of Mobile Social Networks with Realistic Mobility and Traffic Patterns (Reviewer).
- Wissam Chahin, LIA, Université d'Avignon, March 2014, Title: Réseaux hétérogène tolérants aux délais (Examiner).
- Rachad Maallawi, Orange Labs et Université d'Evry, January 2014, Title: Mechanisms, Protocols, and Architectures for the Offloading control in the heterogeneous networks context (President).
- Xavier Miseri, Telecom Paris, October 2013, Title: Enabling inter-domain path diversity (Reviewer).
- Vincenzo Ciancaglini, Inria, Université Nice Sophia Antipolis, July 2013, Title: From key-based to content-based routing: system interconnection and video streaming applications (Examiner).
- Heng Cui, Eurecom, April 2013, Title: Analyse et Diagnostique des Performances Web du Point de Vue de l'Utilisateur (Reviewer).
- Michelle Wetterwald, Eurecom, November 2012, Title: Control of Autonomous Multimode Terminals in Heterogenous and Independent Wireless Environments (President).
- Iuniana Oprescu, Orange Labs and INP Toulouse, October 2012, Title: Virtualization and Distribution of the BGP Control Plane (Examiner).
- Louis Plissonneau, Telecom Paris, July 2012, Title: Network Tomography from an Operator Perspective (Reviewer).
- John Whitbeck, LIP6, Université Pierre et Marie Curie, June 2012, Title: Mobile Opportunistic Networks: Visualization, Modeling, and Application to Data Offloading (Reviewer).
- Sofiane Hassayoun, Telecom Bretagne, June 2011, Title: Synchronization of TCP Packet Losses: Evaluation and Application to Multipath Congestion Control (Reviewer).
- Jong Gun Lee, LIP6, Université Pierre et Marie Curie, March 2011, Title: User Behavior Modeling of Content Generation and Consumption in Online Social Networks (Reviewer).
- Maria Rita Palattella, Politecnico Di Bari, February 2011, Title: Wireless Personal Area Networks: Advanced Modelling and Design (Reviewer).
- Chi-Anh LA, Eurecom and Telecom Paris, October 2010, Title: Content Replication in Mobile Wireless Networks (Examiner).
- Richard Gass, UPMC and Technicolor, June 2010, Title: In-Motion Networking: Enabling Network Services to Users on the Move (Reviewer).
- Fernando Silveira, UPMC and Technicolor, May 2010, Title: Unsupervised Diagnosis of Network Anomalies (Reviewer).

- Ali Mahmino, INP Toulouse, November 2009, Title: Application du Codage Réseau aux Architectures à Garanties de Qualité de Service (QoS) (Reviewer).
- Amine Dhraief, Telecom Bretagne, September 2009, Title: Mobility and Multihoming Convergence (Examiner).
- 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 (Reviewer).
- 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 (Examiner).
- Dino Lopez Pacheco, ENS-Lyon, June 2008, Title: Propositions for a robust and inter-operable eXplicit Control Protocol on Heterogeneous High Speed Networks (Examiner).
- Guillaume Jourjon, University of New South Walles and ENSICA Toulouse, January 2008, Title: Towards a Versatile Transport Protocol (Reviewer).
- 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 (Reviewer).
- Niels Moller, KTH Stockholm, 2005, Title: Automatic control in TCP over wireless (Reviewer).

15. Trainees

- Saadeddine Tazili: Energy-efficient QoE-aware B5G Cellular Networks, 2024, Master Ubinet, Université Côte d'Azur.
- Khalid Hachem: Experimental evaluation of sliced cellular networks, 2024, Master Ubinet, Université Côte d'Azur.
- Yassir Amami: Monitoring future cellular networks: interpreting radio interface measurements in terms of user experience, 2024, Master Ubinet, Université Côte d'Azur.
- Naomi Kirimi: Network monitoring and troubleshooting from within your browser: a data-driven approach, summer internship, 2023, MIT.
- Giovanni Pantaleo: Monitoring mobile edge networks, 2023, Master Ubinet, Université Côte d'Azur.
- Yaacoub Yaacoub: A digital twin for intelligent surfaces aided cellular network infrastructures, 2023, Master Ubinet, Université Côte d'Azur.
- Raza UI Mustafa: Real-time DASH video QoE inference for 5G, 2022, Visiting PhD Student, University of Campinas, Brazil.
- Ayyoub hajjaji: Emulation Fidelity in Cloud Environments, 2022, Master Ubinet, Université Côte d'Azur.
- Mariella Jreidy: Leveraging the wealth of data available in the browser for network monitoring and troubleshooting, 2022, Master Ubinet, Université Côte d'Azur.
- Anass El Boujidi: QoE-aware bandwidth sharing for video streaming traffic, 2021, Master Ubinet, Université Côte d'Azur.
- Bernard Tamba Sandouno: Confronting different network measurements datasets for a better understanding and troubleshooting of User Quality of Experience, 2020, Master Ubinet, University of Nice Sophia Antipolis.
- Chap Chanpiseth: Mining the ACQUA dataset: understanding mobile user Quality of Experience in the wild, 2020, Master Ubinet, University of Nice Sophia Antipolis.

- Houssam ElBouanani: Measurement as a Service in modern Data Center, 2019, Master Ubinet, University of Nice Sophia Antipolis.
- Othmane Belmoukadam: ACQUA A data-driven approach for network and Quality of Experience monitoring, 2018, Master Ubinet, University of Nice Sophia Antipolis.
- Imane Taibi: Measuring and modeling the dependency of Web Quality of Experience on network performance, 2017, Master Ubinet, University of Nice Sophia Antipolis.
- Nawfal Abbassi Saber: Experimenting and modeling YouTube Quality of Experience, 2016, Master Ubinet, University of Nice Sophia Antipolis.
- Thierry Speterbroot: From network-level measurements to expected Quality of Experience for Video applications, 2015, Master Ubinet, University of Nice Sophia Antipolis.
- Nicolas Aguilera: Analysis of the link between QoE and QoS parameters on measurement traces obtained within the Adkintun Mobile platform, 2014, Master of University of Chile (NIC Labs).
- Lelio Renard-Lavaud: Popularité et placement des contenus dans les réeaux tolérants aux délais, 2014, Ecole Polytechnique.
- Salim Afra: How is mobile applications quality impacted by network performances, 2014, Master Ubinet, University of Nice Sophia Antipolis.
- Adel Al Jalam: Assessing Internet Applications Quality Using Active Measurements, 2013, Master Ubinet, University of Nice Sophia Antipolis.
- Riccardo Ravaioli: Is the Internet neutral or content-aware? Handling the question by measurements, 2012, Master Ubinet, University of Nice Sophia Antipolis.
- Tessema Mindaye: Increasing the space of applications for statistical traffic classification methods, 2012, Master Ubinet, University of Nice Sophia Antipolis.
- 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, University of Nice Sophia Antipolis.
- 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] Chadi Barakat, Cristel Pelsser, Theophilus A. Benson, David Choffnes (Eds.), Proceedings of the 22nd ACM Internet Measurement Conference, IMC'22, October 25-27, 2022, Nice, France. ACM 2022, ISBN 978-1-4503-9259-4.
- [2] Chadi Barakat, Renata Teixeira, K. K. Ramakrishnan, Patrick Thiran (Eds.), Proceedings of the 2012 Conference on emerging Networking Experiments and Technologies, CoNEXT'12, December 10-13, 2012, Nice, France. ACM 2012, ISBN 978-1-4503-1775-7.
- [3] 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.
- [4] 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.
- [5] Chadi Barakat, "Evaluation des performances des réseaux WIFI 802.11", Techniques de l'Ingénieur, Lettre réseaux sans fil, Numéro Novembre-Décembre 2006.
- [6] 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.

Refereed Journal and Magazine Papers

- [7] Houssam Elbouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Troubleshooting Distributed Network Emulation", in Springer Annals of Telecommunications, February 2024.
- [8] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turletti, "A novel approach for ray tracing optimization in wireless communication", in Elsevier Computer Communications Journal, vol. 209, pp. 309-319, September 2023.
- [9] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Passive Delay Measurement for Fidelity Monitoring of Distributed Network Emulation", in Elsevier Computer Communications Journal, vol. 195, pp. 40-48, November 2022.
- [10] Tingting Yuan, Wilsons Neto, Christian Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turletti, "Machine Learning for Next-Generation Intelligent Transportation Systems: A Survey", in Wiley Transactions on Emerging Telecommunications Technologies, vol. 33, no. 4, pp e4427, April 2022.
- [11] Tingting Yuan, Christian Esteve Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turletti, "Harnessing UAVs for Fair 5G Bandwidth Allocation in Vehicular Communication via Deep Reinforcement Learning", in IEEE Transactions on Network and Service Management, vol. 18, no. 4, pp. 4063 4074, December 2021.
- [12] Othmane Belmoukadam, Chadi Barakat, "Unveiling the end-user viewport resolution from encrypted video traces", in IEEE Transactions on Network and Service Management, vol. 18, no. 3, pp. 3324-3335, September 2021.
- [13] Tingting Yuan, Wilson da Rocha Neto, Christian Esteve Rothenberg, Katia Obraczka, Chadi Barakat, Thierry Turletti, "Dynamic Controller Assignment in Software Defined Internet of Vehicles through Multi-Agent Deep Reinforcement Learning", in IEEE Transactions on Network and Service Management, vol. 18, no. 1, pp. 585-596, March 2021.

- [14] Othmane Belmoukadam, Muhammad Jawad Khokhar, Chadi Barakat, "On Accounting for Screen Resolution in Adaptive Video Streaming: a QoE driven bandwidth sharing framework", in Wiley International Journal of Network Management, vol. 31, no. 1, pp. e2128, January 2021.
- [15] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Baraat, "Quality of Experience-Aware Mobile Edge Caching through a Vehicular Cloud", in IEEE Transactions on Mobile Computing, vol. 19, no. 9, pp. 2174 - 2188, September 2020.
- [16] Muhammad Jawad Khokhar, Nawfal Abbassi Saber, Thierry Spetebroot, Chadi Barakat, "An Intelligent Sampling Framework for Controlled Experimentation and QoE Modeling", in Elsevier Computer Networks Journal, vol. 147, pp. 246-261, December 2018.
- [17] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Low Cost Video Streaming through Mobile Edge Caching: Modelling and Optimization", in IEEE Transactions on Mobile Computing, vol. 18, no. 6, pp. 1302 1315, June 2019.
- [18] Xuan-Nam Nguyen, Damien Saucez, Chadi Barakat, Thierry Turletti, "Rules Placement Problem in OpenFlow Networks: a Survey", in IEEE Communications Surveys and Tutorials, vol. 18, no. 2, pp. 1273-1286, Secondquarter 2016.
- [19] Damien Saucez, Stefano Secci, Chadi Barakat, "On the Incentives and Incremental Deployments of ICN technologies for OTT Services", in IEEE Network Magazine: Special Issue-Information-Centric Networking Beyond Baseline Scenarios: Research Advances and Implementation, vol. 28, no. 3, pp. 20-25, May-June 2014.
- [20] Rosa Vilardi, Luigi Alfredo Grieco, Chadi Barakat, Gennaro Boggia, "Lightweight Enhanced Monitoring for High-speed Networks", in Wiley Transactions on Emerging Telecommunications Technologies, vol. 25, no. 11, pp. 1095-1113, November 2014.
- [21] Amir Krifa, Chadi Barakat, Thrasyvoulos Spyropoulos, "Message Drop and Scheduling in DTNs: Theory and Practice", in IEEE Transactions on Mobile Computing, vol. 11, no. 9, September 2012.
- [22] 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.
- [23] Karim Sbai, Chadi Barakat, "Experiences on enhancing data collection in large networks", in Elsevier Computer Networks Journal, vol. 53, no. 7, pp. 1073-1086, May 2009.
- [24] Mohammad Malli, Chadi Barakat, Walid Dabbous, "CHESS: An application-aware space for enhanced scalable services in overlay networks", in Elsevier Computer Communications Journal, vol. 31, no. 6, pp. 1239-1253, April 2008.
- [25] T. Tansupasiri, K. Kanchanasut, Chadi Barakat, Philippe Jacquet, "Using Active Networks Technology for Dynamic QoS", in Elsevier Computer Networks Journal, vol. 50, no. 11, pp. 1692-1709, August 2006.
- [26] Chadi Barakat, Mohammad Malli, Naomichi Nonaka, "TICP: Transport Information Collection Protocol", in Springer Annals of Telecommunications, vol. 61, no. 1-2, pp. 167-192, 2006.
- [27] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Arzad-Alam Kherani, Balakrishna Prabhu, "Analysis of MIMD Congestion Control Algorithm for High Speed Networks", in Elsevier Computer Networks Journal, vol. 48, no. 6, pp. 972-989, August 2005.
- [28] Eitan Altman, Chadi Barakat, Victor M. Ramos R., "Analysis of AIMD protocols over paths with variable delay", in Elsevier Computer Networks Journal, vol. 48, no. 6, pp. 960-971, August 2005.
- [29] Imad Aad, Qiang Ni, Chadi Barakat, Thierry Turletti, "Enhancing IEEE 802.11 MAC in Congested Environments", in Elsevier Computer Communications Journal, vol. 28, no. 14, pp. 1605-1617, September 2005.

- [30] Gion Reto Cantieni, Qiang Ni, Chadi Barakat, Thierry Turletti, "Performance Analysis under Finite Load and Improvements for Multirate 802.11", in Elsevier Computer Communications Journal, special issue on Performance of Wireless LANs, PANs, and Ad Hoc Networks, vol. 28, no. 10, pp. 1095-1109, June 2005.
- [31] 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.
- [32] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Parijat Dube, "Performance Analysis of AIMD Mechanisms over a Multi-state Markovian Path", in Elsevier Computer Networks Journal, vol. 47, no. 3, pp. 307-326, February 2005.
- [33] 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.
- [34] Chadi Barakat, Alaeddine Al Fawal, "Analysis of link-level hybrid FEC/ARQ-SR for wireless links and long-lived TCP traffic", in Elsevier Performance Evaluation Journal, vol. 57, no. 4, pp. 423-500, August 2004.
- [35] Chadi Barakat, Eitan Altman, "A Markovian Model for TCP Analysis in a Differentiated Services Network", in Springer Telecommunication Systems Journal, vol. 25, no. 1,2, pp. 129-155, January 2004.
- [36] 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.
- [37] 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.
- [38] Chadi Barakat, Eitan Altman, "On ACK filtering on a slow reverse channel", in Wiley International Journal of Satellite Communications and Networking, vol. 21, pp. 241-258, 2003.
- [39] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Rudesindo Núñez-Queija, "State-dependent M/G/1 type queueing analysis for congestion control in data networks", in Elsevier Computer Networks Journal, vol. 39, no. 6, pp. 789-808, August 2002.
- [40] Eitan Altman, Chadi Barakat, Victor Ramos, "Queuing analysis of simple FEC schemes for voice over IP", in Elsevier Computer Networks Journal, vol. 39, no. 2, pp. 185-206, June 2002.
- [41] Chadi Barakat, Eitan Altman, "Bandwidth tradeoff between TCP and link-level FEC", in Elsevier Computer Networks Journal, vol. 39, no. 2, pp. 133-150, June 2002.
- [42] Chadi Barakat, "TCP modeling and validation", in IEEE Network Journal, vol. 15, no. 3, pp. 38-47, May 2001.
- [43] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "TCP in presence of bursty losses", in Elsevier Performance Evaluation Journal, vol. 42, no. 2-3, pp. 129-147, October 2000.
- [44] 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.

Refereed Conference and Workshop Papers

[45] Naomi Kirimi, Chadi Barakat, Yassine Hadjadj-Aoul, "Passive network monitoring and troubleshooting from within the browser: a data-driven approach", in proceedings of the 20th International Wireless Communications & Mobile Computing Conference (IWCMC), Multimedia Symposium, Cyprus, May 2024.

- [46] Bernard Tamba Sandouno, Chadi Barakat, Thierry Turletti, Walid Dabbous, "Optimizing Ray Tracing Techniques for Generating Large-Scale 3D Radio Frequency Maps", in proceedings of the 25th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Perth, Australia, June 2024.
- [47] Raza Ul Mustafa, Chadi Barakat, Christian Esteve Rothenberg, "YouTube goes 5G: QoE Benchmarking and ML-based Stall Prediction", in proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), Dubai, UAE, April 2024.
- [48] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Troubleshooting Distributed Network Emulation", in proceedings of the 26th Conference on Innovation in Clouds, Internet and Networks (ICIN), Paris, France, March 2023.
- [49] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Delay-based Fidelity Monitoring of Distributed Network Emulation", in proceedings of IEEE COMSNETS Workshop on Testbeds for Advanced Systems Implementation and Research (TASIR), Bangalore, India, January 2023.
- [50] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turletti, "A novel approach to mobile outdoor QoS map generation", in proceedings of the IEEE Wireless Communications and Networking Conference (WCNC), Glasgow, Scotland, UK, March 2023.
- [51] Bernard Tamba Sandouno, Yamen Alsaba, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Site-specific ray generation for accurate estimation of signal power", in proceedings of the 25th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), Montreal, Canada, October 2022.
- [52] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "Leveraging Web browsing performance data for Network monitoring: A data-driven approach", in proceedings of IEEE Globecom, Rio, Brazil, December 2022.
- [53] Othmane Belmoukadam, Chadi Barakat, "QoE-Driven Cache Placement for Adaptive Video Streaming: Minding the Viewport", in proceedings of the IEEE International Mediterranean Conference on Communications and Networking (MeditCom), Athens, Greece, September 2021.
- [54] Houssam ElBouanani, Chadi Barakat, Walid Dabbous, Thierry Turletti, "Passive Delay Measurement for Fidelity Monitoring of Distributed Network Emulation", in proceedings of the 19th Mediterranean Communication and Computer Networking Conference (MedComNet), Online Conference, June 2021.
- [55] Giulio Grassi, Renata Teixeira, Chadi Barakat, Mark Crovella, "Leveraging Website Popularity Differences to Identify Performance Anomalies", in proceedings of IEEE INFOCOM, May 2021.
- [56] Othmane Belmoukadam, Chadi Barakat, "From Encrypted Video Traces to Viewport Classification", in proceedings of the 16th International Conference on Network and Service Management (CNSM), Virtual Conference, November 2020. **Best paper.**
- [57] Othmane Belmoukadam, Muhammad Jawad Khokhar, Chadi Barakat, "On excess bandwidth usage of video streaming: when video resolution mismatches browser viewport", in proceedings of the 11th IEEE International Conference on Networks of the Future (NoF 2020), Bordeaux, France, October 2020.
- [58] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "Data Driven Network Performance Inference From Within The Browser", in proceedings of the 12th IEEE Workshop on Performance Evaluation of Communications in Distributed Systems and Web based Service Architectures (PEDISWESA), Rennes, July 2020.
- [59] Imane Taibi, Yassine Hadjadj-Aoul, Chadi Barakat, "When Deep Learning meets Web Measurements to infer Network Performance", in proceedings of the IEEE 17th Annual Consumer Communications & Networking Conference (CCNC), Las Vegas, January 2020.

- [60] Othmane Belmoukadam, Muhammad Jawad Khokhar, Chadi Barakat, "On Accounting for Screen Resolution in Adaptive Video Streaming: A QoE-Driven Bandwidth Sharing Framework", in proceedings of the 15th International Conference on Network and Service Management (CNSM), Halifax, Canada, October 2019.
- [61] Muhammad Jawad Khokhar, Thibaut Ehlinger, Chadi Barakat, "From Network Traffic Measurements to QoE for Internet Video", in proceedings of IFIP Networking, Warsaw, Poland, May 2019.
- [62] Othmane Belmoukadam, Thierry Spetebroot, Chadi Barakat, "ACQUA: A user friendly platform for lightweight network monitoring and QoE forecasting", in proceedings of the 3rd International Workshop on QoE Management, Paris, February 2019.
- [63] Karyna Gogunska, Chadi Barakat, Guillaume Urvoy-Keller, Dino Lopez Pacheco, "On the Cost of Measuring Traffic in a Virtualized Environment", in proceedings of IEEE CloudNet, Tokyo, October 2018. Best student paper.
- [64] Muhammad Khokhar, Thierry Spetebroot, Chadi Barakat, "A Methodology for Performance Benchmarking of Mobile Networks for Internet Video Streaming", in proceedings of the 21st ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), Montreal, Canada, October 2018.
- [65] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "A Two-Step Chunk-Based Algorithm for Offloading Streaming Traffic through a Vehicular Cloud", in proceedings of the IEEE 19th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), Greece, June 2018.
- [66] Muhammad Jawad Khokhar, Thierry Spetebroot, Chadi Barakat, "An Online Sampling Approach for Controlled Experimentation and QoE Modeling", in proceedings of IEEE ICC, Kansas City, May 2018.
- [67] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Quality of Experience-Aware Mobile Edge Caching through a Vehicular Cloud", in proceedings of the 20th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), Miami, USA, November 2017.
- [68] Luigi Vigneri, Salvatore Pecoraro, Thrasyvoulos Spyropoulos, Chadi Barakat, "Per-Chunk Caching for Video Streaming from a Vehicular Cloud", in proceedings of ACM MobiCom Workshop on Challenged Networks (CHANTS), Utah, USA, October 2017.
- [69] Muhammad Jawad Khokhar, Nawfal Abbasi Saber, Thierry Spetebroot, Chadi Barakat, "On active sampling of controlled experiments for QoE modeling", in proceedings of ACM SIGCOMM Workshop on QoE-based Analysis and Management of Data Communication Networks (Internet-QoE), Los Angeles, August 2017.
- [70] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Streaming Content from a Vehicular Cloud", in proceedings of ACM MobiCom Workshop on Challenged Networks (CHANTS), New York, October 2016.
- [71] Riccardo Ravaioli, Guillaume Urvoy-Keller, Chadi Barakat, "Testing for Traffic Differentiation with ChkDiff: The Downstream Case", in proceedings of ITC-28, Wurzburg, Germany, September 2016.
- [72] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Storage on Wheels: Offloading Popular Contents Through a Vehicular Cloud", in proceedings of the IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Coimbra, Portugal, June 2016.
- [73] Thierry Spetebroot, Salim Afra, Nicolas Aguilera, Damien Saucez, Chadi Barakat, "From network-level measurements to expected Quality of Experience: the Skype use case", in proceedings of the IEEE International Workshop on Measurement and Networking (M&N), Coimbra, Portugal, October 2015.
- [74] Riccardo Ravaioli, Guillaume Urvoy-Keller, Chadi Barakat, "Towards a General Solution for Detecting Traffic Differentiation At the Internet Access", in proceedings of ITC-27, Ghent, Belgium, September 2015.

- [75] Mahoumd El Chamie, Chadi Barakat, Giovanni Neglia, "Geographically Fair In-Network Caching for Mobile Data Offloading", in proceedings of IFIP Networking conference, Toulouse, May 2015.
- [76] Riccardo Ravaioli, Guillaume Urvoy-Keller, Chadi Barakat, "Characterizing ICMP Rate Limitation on Routers", in proceedings of IEEE ICC, London, June 2015.
- [77] Xuan-Nam Nguyen, Damien Saucez, Chadi Barakat, Thierry Turletti, "OFFICER: A general Optimization Framework for OpenFlow Rule Allocation and Endpoint Policy Enforcement", in proceedings of IEEE INFOCOM, Hong Kong, April 2015.
- [78] Xuan-Nam Nguyen, Damien Saucez, Chadi Barakat, Thierry Turletti, "Optimizing rules placement in OpenFlow networks: trading routing for better efficiency", in proceedings of ACM SIGCOMM HotSDN Workshop, Chicago, August 2014.
- [79] Damien Saucez, Ilaria Cianci, Luigi Alfredo Grieco, Chadi Barakat, "When AIMD meets ICN: a bandwidth sharing perspective", in proceedings of IFIP Networking, Norway, June 2014.
- [80] Francisco Neves dos Santos, Benjamin Ertl, Chadi Barakat, Thrasyvoulos Spyropoulos, Thierry Turletti, "CEDO: Content-Centric Dissemination Algorithm for Delay-Tolerant Networks", in proceedings of the 16th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), Barcelona, November 2013.
- [81] Damien Saucez, Luigi Alfredo Grieco, Chadi Barakat, "AIMD and CCN: past and novel acronyms working together in the Future Internet", in proceedings of ACM CoNEXT Capacity Sharing Workshop (CSWS), Nice, December 2012.
- [82] 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.
- [83] 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.
- [84] 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.
- [85] 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.
- [86] 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.
- [87] 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.
- [88] 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.
- [89] Imed Lassoued, 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 (PRESTO), Philadelphia (PA), November 2010.
- [90] Roberto Cascella, Chadi Barakat, "Estimating the access link quality by active measurements", in proceedings of the 22nd International Teletraffic Congress (ITC 22), Amsterdam, Netherlands, September 2010.

- [91] 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.
- [92] 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.
- [93] Karim Sbai, Emna Salhi, Chadi Barakat, "P2P content sharing in spontaneous multi-hop wireless networks", in proceedings of the IEEE COMSNETS conference, Bengalore, January 2010.
- [94] Luigi Alfredo Grieco, 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.
- [95] 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.
- [96] Karim Sbai, Emna Salhi, Chadi Barakat, "A membership management protocol for mobile P2P networks", in proceedings of the ACM Mobility Conference, Nice, September 2009.
- [97] Luigi Alfredo Grieco, Chadi Barakat, "An Analysis of Packet Sampling in the Frequency Domain", in proceedings of the ACM Internet Measurement Conference (IMC), Chicago, November 2009.
- [98] Mohamed Ali Kaafar, Laurent Mathy, Chadi Barakat, Kave Salamatian, Thierry Turletti, Walid Dabbous, "Certified Internet Coordinates", in proceedings of IEEE ICCCN conference, San Francisco, August 2009.
- [99] Anwar Al-Hamra, Nikitas Liogkas, Arnaud Legout, Chadi Barakat, "Swarming Overlay Construction Strategies", in proceedings of IEEE ICCCN conference, San Francisco, August 2009.
- [100] 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.
- [101] Mohamad Jaber, Chadi Barakat, "Enhancing Application Identification By Means Of Sequential Testing", in proceedings of IFIP/TC6 Networking Conference, Aechan, Germany, May 2009.
- [102] 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.
- [103] 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.
- [104] 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.**
- [105] 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.
- [106] 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.
- [107] 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.
- [108] 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.

- [109] Gion Reto Cantieni, Gianluca Iannaccone, Chadi Barakat, Christophe Diot, Patrick Thiran, "Reformulating the monitor placement problem: Optimal Network-wide Sampling", in proceedings of CoNext, Lisboa, Portugal, December 2006.
- [110] Marc Liberatore, Brian Levine, Chadi Barakat, "Maximizing Transfer Opportunities in DTN", in proceedings of CoNext, Lisboa, Portugal, December 2006.
- [111] Anwar Al Hamra, Chadi Barakat, Thierry Turletti, "Network Coding for Wireless Mesh Networks: A Case Study", in proceedings of the IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Buffalo-NY, June 2006.
- [112] E. Altman, C. Barakat, S. Mascolo, N. Moller, J. Sun, "Analysis of TCP Westwood+ in high speed networks", in proceedings of PFLDnet'06: workshop on Protocols for Fast Long-Distance networks, Nara, Japan, February 2006.
- [113] Mohammad Malli, Chadi Barakat, Walid Dabbous, "Application-level versus Network-level Proximity", in proceedings of the AINTEC conference, Bangkok, December 2005.
- [114] Chadi Barakat, Gianluca Iannacconne, Christophe Diot, "Ranking flows from sampled traffic", in proceedings of CoNEXT, Toulouse, October 2005.
- [115] Hossein Manshaei, Gion Reto Cantieni, Chadi Barakat, Thierry Turletti, "Performance Analysis of the IEEE 802.11 MAC and Physical Layer Protocol", in proceedings of the IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), Taormina, June 2005.
- [116] Imad Aad, Qiang Ni, Chadi Barakat, Thierry Turletti, "Enhancing IEEE 802.11 MAC in Congested Environments", in proceedings of the Applications and Services in Wireless Networks workshop (AWSN), Boston, August 2004.
- [117] Sara Alouf, Eitan Altman, Chadi Barakat, Philippe Nain, "On the dynamic estimation of multicast group sizes", in proceedings of the International Symposium on Mathematical Theory of Networks and Systems (MTNS), Leuven, Belgium, July 2004.
- [118] Fatma Louati, Chadi Barakat, Walid Dabbous, "Adaptive Class-based Queuing for handling Two-Way traffic in Asymmetric Networks", in proceedings of the conference on High Speed Networks and Multimedia Communications (HSNMC), Toulouse, France, July 2004.
- [119] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Arzad-Alam Kherani, Balakrishna Prabhu, "Analysis of Scalable TCP", in proceedings of the conference on High Speed Networks and Multimedia Communications (HSNMC), Toulouse, France, July 2004.
- [120] Mohammad Malli, Qiang Ni, Thierry Turletti, Chadi Barakat, "Adaptive Fair Channel Allocation for QoS Enhancement in IEEE 802.11 Wireless LANs", in proceedings of IEEE ICC, Paris, June 2004.
- [121] Raja Abdelmoumen, Chadi Barakat, "Analysis of TCP latency over wireless links supporting FEC/ARQ-SR for error recovery", in proceedings of IEEE International Conference on Communications (ICC), Paris, June 2004.
- [122] Hung Nguyen, Patrick Thiran, Chadi Barakat, "On the correlation of TCP traffic in backbone networks", in proceedings of the IEEE International Symposium on Circuits and Systems (ISCAS), Vancouver, Canada, May 2004.
- [123] Eitan Altman, Chadi Barakat, Victor M. Ramos R., "Analysis of AIMD protocols over paths with variable delay", in proceedings of IEEE INFOCOM, Hong Kong, March 2004.
- [124] Qiang Ni, Imad Aad, Chadi Barakat, Thierry Turletti, "Modeling and Analysis of Slow CW Decrease for IEEE 802.11 WLAN", in proceedings of the International Symposium on Personnel, Indoor and Mobile Radio Communications (PIMRC), Beijing, China, September 2003.

- [125] Urtzi Ayesta, Kostya Avranchenkov, Eitan Altman, Chadi Barakat, Parijat Dube, "Multilevel Approach for Modeling Short TCP Sessions", in proceedings of ITC-18, Berlin, September 2003.
- [126] Victor Ramos, Chadi Barakat, Eitan Altman, "A Moving Average Predictor for Playout Delay Control in VoIP", in proceedings of the Eleventh International Workshop on Quality of Service (IWQoS 2003), Monterey, CA, June 2003.
- [127] Sara Alouf, Eitan Altman, Chadi Barakat, Philippe Nain, "Estimating Membership in a Multicast Session", in proceedings of ACM SIGMETRICS, San Diego, CA, June 2003.
- [128] Alaeddine Al Fawal, Chadi Barakat, "Simulation-based study of link-level hybrid FEC/ARQ-SR for wire-less links and long-lived TCP traffic", in proceedings of WiOpt'03: Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks, Sophia Antipolis, France, March 2003.
- [129] Rares Serban, Chadi Barakat, Walid Dabbous, "Enhancing CBQ with a Dynamic Bandwidth Allocation Module", in proceedings of Setit 2003, Tunisia, March 2003.
- [130] Urtzi Ayesta, Kostya Avranchenkov, Eitan Altman, Chadi Barakat, Parijat Dube, "Multilevel Approach for Modeling TCP/IP", in proceedings of PFLDnet'03: workshop on Protocols for Fast Long-Distance networks, CERN-Geneva, Switzerland, February 2003.
- [131] Rares Serban, Chadi Barakat, Walid Dabbous, "Dynamic Resource Allocation in Core Routers of a Diffserv Network", in proceedings of the Asian Computing Science Conference (ASIAN), Hanoi, Vietnam, December 2002.
- [132] Chadi Barakat, Patrick Thiran, Gianluca Iannaccone, Christophe Diot, Philippe Owezarski, "A flow-based model for Internet backbone traffic", in proceedings of ACM SIGCOMM Internet Measurement Workshop, Marseille, France, November 2002.
- [133] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "TCP network calculus: The case of large bandwidth-delay product", in proceedings of IEEE INFOCOM, NY, June 2002.
- [134] Kostya Avratchenkov, Urtzi Ayesta, Eitan Altman, Philippe Nain, Chadi Barakat, "The effect of router buffer size on the TCP performance", in proceedings of LONIIS workshop on Telecommunication Networks and Teletraffic Theory, St. Petersburg, Russia, January 2002.
- [135] Eitan Altman, Chadi Barakat, Victor Ramos, "On the utility of FEC mechanisms for audio applications", in proceedings of the international workshop on Quality of future Internet Services (QofIS), Coimbra, Portugal, September 2001.
- [136] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Rudesindo Nunez Queija, "TCP modeling in the presence of nonlinear window growth", in proceedings of ITC-17, Salvador da Bahia, Brazil, September 2001.
- [137] Chadi Barakat, Eitan Altman, "Bandwidth Tradeoff between TCP and Link-Level FEC", in proceedings of IEEE International Conference on Networking, Colmar, France, July 2001.
- [138] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Rudesindo Nunez Queija, "State-dependent M/G/1 Type Queueing Analysis for Congestion Control in Data Networks", in proceedings of IEEE INFOCOM, Anchorage, Alaska, April 2001. A more detailed version: CWI report PNA-R0005, July 2000.
- [139] Eitan Altman, Chadi Barakat, Victor Ramos, "Queueing Analysis of Simple FEC Schemes for IP Telephony", in proceedings of IEEE INFOCOM, Anchorage, Alaska, April 2001.
- [140] Eitan Altman, Chadi Barakat, Emanuel Laborde, Patrick Brown, Denis Collange, "Fairness Analysis of TCP/IP", in proceedings of IEEE Conference on Decision and Control, Sydney, Australia, December 2000.
- [141] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, Parijat Dube, "TCP over a Multi-State Markovian Path", in proceedings of the international conference on the Performance and QoS of Next Generation Networking (P&QNet), Nagoya, Japan, November 2000.

- [142] Chadi Barakat, Eitan Altman, "On ACK Filtering on a Slow Reverse Channel", in proceedings of the first international workshop on Quality of future Internet services, Berlin, Germany, September 2000. **Best PhD Student Paper.**
- [143] Chadi Barakat, Eitan Altman, "A Markovian Model for TCP Analysis in a Differentiated Services Network", in proceedings of the first international workshop on Quality of future Internet services, Berlin, Germany, September 2000.
- [144] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "A Stochastic Model of TCP/IP with Stationary Random Losses", in proceedings of ACM SIGCOMM, Stockholm, Sweden, August 2000.
- [145] Eitan Altman, Kostya Avrachenkov, Chadi Barakat, "TCP in presence of bursty losses", in proceedings of ACM SIGMETRICS, Santa Clara, California, June 2000.
- [146] Chadi Barakat, Eitan Altman, "Performance of Short TCP Transfers", in proceedings of Networking 2000 (Performance of Communication Networks), Paris, May 2000.
- [147] Chadi Barakat, Eitan Altman, "Impact of Network Buffers on TCP Start-Up", in proceedings of IEEE Middle East Workshop on Networking, Beirut, Lebanon, November 1999.
- [148] Chadi Barakat, Eitan Altman, "Analysis of TCP with Several Bottleneck Nodes", in proceedings of IEEE GLOBECOM (Global Internet Symposium), Rio, Brazil, December 1999. A more detailed version: INRIA Research Report RR-3620, February 1999.
- [149] Chadi Barakat, Nesrine Chaher, Walid Dabbous, Eitan Altman, "Improving TCP/IP over Geostationary Satellite Links", in proceedings of IEEE GLOBECOM (General Conference), Rio, Brazil, December 1999. A more detailed version: INRIA Research Report RR-3573, December 1998.
- [150] Chadi Barakat, Jean-Louis Rougier, "Optimization of Hierarchical Multicast Trees in ATM Networks", in proceedings of IFIP ATM'98, Ilkley, UK, July 1998.

Extended Abstracts, Posters, Demos and Invited Papers

- [151] Raza UI Mustafa, Chadi Barakat, Christian Esteve Rothenberg, "YouTube goes 5G: Benchmarking YouTube in 4G vs 5G Through Open Datasets", demo, in proceedings of IEEE Globecom, Rio, Brazil, December 2022.
- [152] Houssam ElBouanani, Chadi Barakat, Guillaume Urvoy-Keller, Dino Lopez-Pacheco, "Collaborative Traffic Measurement in Virtualized Data Center Networks", short paper, in proceedings of IEEE International Conference on Cloud Networking (CloudNet 2019), Coimbra, Portugal, November 2019.
- [153] Karyna Gogunska, Chadi Barakat, Guillaume Urvoy-Keller, "Tuning optimal traffic measurement parameters in virtual networks with machine learning", short paper, in proceedings of IEEE International Conference on Cloud Networking (CloudNet 2019), Coimbra, Portugal, November 2019.
- [154] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Offloading Mobile Traffic Using a Vehicular Cloud", invited to the ACM Sigmetrics Workshop on Future challenges in User-Centric Networks, Juan Les Pins, France, June 2016.
- [155] Chadi Barakat, Anshuman Kalla, Damien Saucez, Thierry Turletti, "Minimizing Bandwidth on Peering Links with Deflection in Named Data Networking", invited to the International Conference on Communications and Information Technology (ICCIT), Beirut, June 2013.
- [156] Riccardo Ravaioli, Chadi Barakat, Guillaume Urvoy-Keller, "Checking Traffic Differentiation at Internet Access", short paper, in proceedings of ACM CoNEXT Student Workshop, Nice, December 2012.
- [157] Amir Krifa, Marc Mendonca, Rao Naveed Bin Rais, Chadi Barakat, Thierry Turletti, Katia Obraczka, "Efficient Content Dissemination in Heterogeneous Networks Prone to Episodic Connectivity", demo, in proceedings of ACM SIGCOMM, Toronto, Canada, August 2011.

- [158] Mohamad Jaber, Roberto Cascella, Chadi Barakat, "Boosting statistical application identification by flow correlation", invited to EuroNF-TCCFI (International Workshop on Traffic and Congestion Control for the Future Internet), Greece, April 2011.
- [159] Amir Krifa, Karim Sbai, Chadi Barakat, Thierry Turletti, "A standalone content sharing application for spontaneous communities of mobile handhelds", demo, in proceedings of the ACM SIGCOMM MobiHeld Workshop, Barcelona, Aug 2009.
- [160] Amir Krifa, Karim Sbai, Chadi Barakat, Thierry Turletti, "BitHoc: A content sharing application for Wireless Ad hoc Networks", demo, in proceedings of the IEEE Percom conference, Galveston, Texas, March 2009.
- [161] Eitan Altman, Konstantin Avrachenkov, Chadi Barakat, Kartikeya Chandrayana, "Multilevel approach for the modeling of large TCP/IP networks", invited to the Symposium on Recent Advances for Modeling and Simulation Tools for Communications Networks and Services, organized by COST 285 in Surrey, UK, 2007.
- [162] Gion Reto Cantieni, Gianluca Iannaccone, Chadi Barakat, Christophe Diot, Patrick Thiran, "Reformulating the monitor placement problem: Optimal Network-wide Sampling", invited to the Conference on Information Science (CISS), Princeton NJ, March 2006.
- [163] Chadi Barakat, Gion Reto Cantieni, "A distance-aware model of 802.11 MAC layer", extended abstract, in proceedings of WiOpt workshop: Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks, Cambridge (UK), March 2004.
- [164] Chadi Barakat, Patrick Thiran, Gianluca Iannaccone, Christophe Diot, "On Internet backbone traffic modeling", extended abstract, in proceedings of ACM SIGMETRICS, Marina Del Rey, CA, June 2002.
- [165] Chadi Barakat, Eitan Altman, "Analysis of the Phenomenon of Several Slow Start Phases in TCP", extended abstract, in proceedings of ACM SIGMETRICS, Santa Clara, California, June 2000. A more detailed version: INRIA Research Report RR-3574, December 1998.

Thesis

- [166] Chadi Barakat, "Solutions efficaces pour la métrologie de l'Internet", Habilitation à Diriger des Recherches en Informatique, University of Nice Sophia Antipolis, January 2009.
- [167] Chadi Barakat, "Performance Evaluation of TCP Congestion Control", PhD thesis, University of Nice -Sophia Antipolis, France, April 2001.
- [168] Chadi Barakat, "Le Routage Multicast Hiérarchique", DEA Thesis, ESSI, University of Nice Sophia-Antipolis, France, June 1998.
- [169] Chadi Barakat, Rani Makki, Hayan Mahfouz, "Design and Implementation of a Video Tracker", Electrical and Electronics Engineering Degree, Lebanese University, Beirut, Lebanon, July 1997.

Patents

[170] Takatani Yukihiro, Nonaka Naomichi, Barakat Chadi, "Information Collecting Protocol", Application Number EP20030290255, Publication Number EP1443704 (A1), Publication Date 2004-08-04.