Chadi Barakat

PhD and HDR in Computer Sciences
Electrical and Electronics Engineer

Birth	: June 19th, 1974
Citizenship	: French
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1. Experience

- 10/18 - present: Research Director, Diana Project-Team, INRIA Sophia Antipolis - Méditerranée, France.

- 03/02 - 09/18: Associate Researcher, Diana (Ex. Planète) Project-Team, INRIA Sophia Antipolis - Méditerranée, France.

- 03/04 - 08/04: Visiting Faculty, 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.

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.

  - *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.

3. Awards and distinctions

- Senior member of the ACM, April 2018.

- Best student paper award for our paper "On the Cost of Measuring Traffic in a Virtualized Environment", IEEE Cloudnet conference, Tokyo, October 2018

- Senior member of the IEEE, January 2010.

- Best paper award for our 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 students funded by the foundation in Lebanon and abroad, five times from 1993 to 1997.

4. Research interests   Internet measurements and traffic analysis, user quality of experience and network transparency, new network architectures (Information-Centric Networking and Software-Defined Networking), performance evaluation of computer networks.

5. Research projects

Current projects

- ACQUA: Monitoring Internet access and Quality of User Experience. Supported by Inria ADT ACQUA, Inria IPL BetterNet and ANR BottleNet.

- Offloading mobile networks by content caching at the edge (or in vehicles). Supported by Labex UCN@SOPHIA.

- ChkDiff: Checking Traffic Differentiation at Internet access. Supported by Labex UCN@SOPHIA.

Past projects

- 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

- 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 (2005, 2010, 2017), ACM CoNEXT conference (2006, 2011, 2016), Passive and Active Measurement (PAM) conference (2004, 2005, 2013, 2016), IEEE ICNP conference (2002, 2005), IEEE SECON conference (2007), International Teletraffic Congress (ITC) (2009, 2017), ACM SIGCOMM Posters and Demos (2015, 2018), ACM MECOMM Workshop (2018), TMA Conference (2013, 2015, 2019), IEEE Symposium on Measurements and Networking M&N (2017, 2019), AINTEC (2016), CNSM (2012, 2019), 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), IEEE/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

- Member of the working group International Affairs of the Conseil d'Orientation Scientifique et Technologique (COST-GTRI) at INRIA (2011-present).

- Scientific correspondent and 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 - 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

- Co-organizer of the series of seminars Forum Numerica of University Nice 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

- 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 acces 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.

- 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

- Inria Project Lab BetterNet (2016-2020).

- ANR BottleNet French project led by Inria (2016-2019).

- 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 IFI/Ubinet, University of Nice Sophia Antipolis, 2008-present.

- Internet Measurement and New Architectures, 9 hours, Master IFI/Ubinet, University of Nice Sophia Antipolis, 2008-present.

- Voice over IP and adaptive multimedia applications, 6 hours, Master ESTEL (ex-TSM), University of Nice Sophia Antipolis, 2007-present.

- Computer Networks, 12 hours, Master 1 in Computer Science, University of Nice Sophia Antipolis, 2018-present.

- Internet of the Future, 12 hours, Master 1 in Computer Science, University of Nice Sophia Antipolis, 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

- *Giulio Grassi:* Postdoc starting October 2018. Funded by Inria within the Project Lab BetterNet. Main focus on cross-data analysis for a better network monitoring and troubleshooting.

- *Thierry Spetebroot:* Expert Engineer starting 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. Main focus 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 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. Main focus 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. Main focus 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. Co-supervised with Arnaud Legout. Main focus 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

- *Othmane Belmoukadam*: Started in October 2018. Funded by the University of Nice Sophia Antipolis and the University 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. Funded by Inria Project Lab BetterNet. Thesis title: Big data analysis for network monitoring and troubleshooting.

- *Karyna Gogunska*: Co-supervised with Guillaume Urvoy-Keller. Started in October 2016. Funded by the UCN@SOPHIA Labex. Thesis title: Empowering Virtualized Networks with Measurement As a Service (MaaS).

- *Jawad Khokhar*: Started in January 2016. 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. 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. Graduated in July 2016. Funded by the UCN@SOPHIA Labex. Thesis title: Active and Passive Inference of Network Neutrality.

- *Amir Krifa*: Graduated in April 2012. Thesis title: Towards better content dissemination applications for Disruption Tolerant Networks.

- *Imed Lassoued*: Graduated in December 2011. Funded by the ECODE FP7 project. Thesis title: Adaptive Monitoring and Management of Internet Traffic.

- *Karim Sbai*: Co-supervised with Walid Dabbous. 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. 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.

- *Rares Serban:* Co-supervised with Walid Dabbous. Graduated in September 2003. Thesis title: Dynamic IP QoS management.

13. PhD committee participation

- Mariem Ben Yahia, IMT-Atlantique, May 2019, Title: Low Latency Video Streaming Solutions based on HTTP/2 (Reviewer).

- Hamza Ben Ammar, University of Rennes 1, March 2019, Title: On Models for Performance Evaluation and Cache Resources Placement in Multi-Cache Networks (Reviewer).

- Muhammad Ikram, University of New South Wales and Data61, April 2018, Title: Analysis and Design of Secure and Privacy Preserving Systems (Reviewer).

- Wenqin Shao, Telecom ParisTech, 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 Univ d'Evry, January 2014, Title: Mechanisms, Protocols, and Architectures for the Offloading control in the heterogeneous networks context (President).

- Xavier Miseri, Telecom ParisTech, October 2013, Title: Enabling inter-domain path diversity (Reviewer).

- Vincenzo Ciancaglini, Inria/Université de 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, LAAS and Orange Labs, October 2012, Title: Virtualization and Distribution of the BGP Control Plane (Examiner).

- Louis Plissonneau, ParisTech (ENST), July 2012, Title: Network Tomography from an Operator Perspective (Reviewer).

- John Whitbeck, 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, UPMC-Paris 6, 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 Paris Tech, October 2010, Title: Content Replication in Mobile Wireless Networks (Examiner).

- Richard Gass, UPMC-Paris 6 and Technicolor, June 2010, Title: In-Motion Networking: Enabling Network Services to Users on the Move (Reviewer).

- Fernando Silveira, UPMC-Paris 6 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 the 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).

14. Trainees

- *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 rŕeaux 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, 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.

[2] 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.

[3] 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.

[4] Chadi Barakat, "Evaluation des performances des réseaux WIFI 802.11", Techniques de l'Ingénieur, Lettre réseaux sans fil, Numéro Novembre-Décembre 2006.

[5] 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 papers

[6] Muhammad Jawad Khokhar, Nawfal Abbassi Saber, Thierry Spetebroot, Chadi Barakat, "An Intelligent Sampling Framework for Controlled Experimentation and QoE Modeling", in Computer Networks, vol. 147, pp. 246-261, December 2018.

[7] Luigi Vigneri, Thrasyvoulos Spyropoulos, Chadi Barakat, "Low Cost Video Streaming through Mobile Edge Caching: Modelling and Optimization", in IEEE Transactions on Mobile Computing, to appear.

[8] 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.

[9] 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.

[10] 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.

[11] 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.

[12] 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.

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