Alessandro **Mei**
Dipartimento di Informatica
via Salaria 113, terzo piano, RM 00198, Italia
T +39 06 49255157 mei@di.uniroma1.it
http://www.dsi.uniroma1.it/~mei

Alessandro Mei ha conseguito la laurea in Scienze dell'informazione con lode all'Università di Pisa, 1994, e il dottorato di ricerca in Matematica all'Università di Trento, 1999. Ha lavorato come ricercatore al Department of EE-Systems della University of Southern California, 1998-1999, e all'Università di Trento, 2000-2001. Dal 2001 è docente di Informatica alla Sapienza e dal 2010 professore ordinario. Nel periodo 2012 al 2015 ha diretto il dottorato di ricerca in Informatica e dal 2013 al 2015 la scuola di dottorato in Scienza e tecnologia dell'informazione e delle comunicazioni. Dal 2015 è Direttore del Dipartimento di Informatica e dal 2018 Presidente del Collegio dei Direttori di Dipartimento. I suoi interessi di ricerca includono i sistemi distribuiti, la sicurezza informatica, l'Internet delle cose e le reti sociali. Ha ricevuto numerosi premi internazionali, è stato General Chair di IEEE IPDPS 2009, una delle principali conferenze internazionali del settore, ed è stato membro del comitato editoriale delle IEEE Transactions on Computers, rivista ammiraglia e storica della IEEE Computer Society. Alessandro Mei è stato un Marie Curie Visiting Professor alla University of California San Diego, 2010-2011, professore ospite al MIT, estate 2016, e ha ricevuto il Google Faculty Research Award 2013.

Titoli di studio

Dottorato di ricerca in Matematica, Universita` di Trento. Advisor: Prof. Alan A. Bertossi. Tesi: "Reconfigurable Networks: Models and Algorithms" — 29 November 1999.

Laurea in Scienze dell'informazione (*con lode*), Universita` di Pisa — 1994.

Posizioni accademiche

Professore ordinario di Informatica, Sapienza Universita` di Roma — dal 2010.

Visiting Professor, Senseable City Lab, MIT, Boston, MA, USA — Aug 2016.

Marie Curie Visiting Professor, CSE Department, University of California San Diego — 2010–2011.

Professore associato di Informatica, Sapienza Universita` di Roma — 2006–2010.

Ricercatore universitario di Informatica, Sapienza Universita` di Roma — 2001–2006.

Visiting Professor, Center for Secure Information Systems, George Mason University, Fairfax, VA, USA — Aug 2001.

Assegnista di ricerca – Dipartimento di Matematica, Universita` di Trento — 2000–2001.

Visiting Scholar – Department of EE-Systems, Computer Division, University of Southern California, Los Angeles, CA, USA — 1998–1999.

Awards

Google Faculty Research Award, 2013.

Best Demo Award di IEEE SECON 2013.

Best Demo Award di IEEE INFOCOM 2013.

Marie Curie Fellowship, 2010–2012.

Best Paper Award di IEEE IPDPS 2002.

EE-systems Outstanding Research Paper Award of the USC, University of Southern California, Los Angeles, CA, USA, 2000.

Best Paper Award in the Algorithms and Applications Area della 5th IEEE/ACM International Conference on High Performance Computing (HIPC), Madras (India), December 1998.

Research Interest

Sistemi distribuiti; sicurezza informatica; Internet delle cose; e reti sociali.

Attività didattica recente (alla Sapienza)

a.a. 2017–2018: Architettura degli elaboratori.

a.a. 2016–2017: Sistemi distribuiti, Architettura degli elaboratori.

a.a. 2015–2016: Sistemi distribuiti, Architettura degli elaboratori.

a.a. 2014–2015: Sistemi distribuiti, Architettura degli elaboratori.

a.a. 2013–2014: Sistemi distribuiti, Architettura degli elaboratori.

Supervisione di studenti di dottorato

Adriano Di Luzio, 2016–2019; Massimo La Morgia, 2015–2018; Enis Ulqinaku, 2014–2017; Airton Pereira, 2015–2016, dottorando ospite dalla U Federal de Pernambuco, Brazil; Vasile C. Perta, 2011–2014, (Google Inc.); Antonio Davoli, 2010–2013, (Facebook Inc); Marco V. Barbera, 2009–2012, (Facebook Inc.); Sokol Kosta, 2009–2012 (Assistant Professor at Aalborg University, Denmark); Natascia Piroso, 2007–2011 (Amazon Inc); Harshit Shah, 2008, dottorando ospite dal TIFR, Mumbai; Julinda Stefa, 2006–2009 (RTDB alla Sapienza); Vishwas T. Patil, 2004–2007 (Ricercatore all'Institute for Infocomm Research, Singapore).

Attività scientifiche internazionali

Membro del comitato di programma di IEEE ICDCS 2019, IEEE INFOCOM 2018, IEEE ICC 2018, ACM CoNEXT 2017, ACM WiSec 2017, IEEE INFOCOM 2017, IEEE Mobile Cloud 2017, IEEE Mobile Cloud 2016, IEEE INFOCOM 2016, IEEE IPDPS 2016, IEEE INFOCOM 2015, IEEE IPDPS 2015, IEEE INFOCOM 2014, IEEE INFOCOM 2013, IEEE MASS 2012, IEEE INFOCOM 2012, IEEE SECON 2012, IEEE INFOCOM 2011, IEEE SECON 2011, IEEE MASS 2010, IEEE SECON 2010, insieme a numerosi workshop e conferenze internazionali minori.

Docente alla Lipari School on Computational Social Science, Jacob T. Schwartz International School for Scientific Research, Lipari, Italia, luglio 2015.

Associate Editor delle IEEE Transactions on Computers, 2005–2009.

General Chair di IEEE IPDPS 2009, Rome, Italy.

Progetti di ricerca recenti

PI del progetto EU H2020 RAPID IST-644312 STP, 2015–2018.

co-PI del progetto Inf@nzia Digi.Tales 3.2, PON Smart Cities and Communities, 2014–2016.

co-PI del progetto SPAI: Salvaguardia della Privacy nelle Applicazioni Internet, MISE, 2015.

Google Faculty Research Award, 2013.

co-PI e WP leader del progetto EU FP7 TROPIC IST-318784 STP, 2012–2015.

PI del progetto EU FP7 IOT-A IST-257521 IP, 2010–2013.

Marie Curie Outgoing International Fellowship, UCSD e Sapienza, 2010–2011.

Membro di numerosi progetti della EU.

Responsabile scientifico di numerosi progetti regionali della Regione Lazio.

Responsabile scientifico e membro di alcuni progetti di Ateneo.

Servizi accademici

Presidente del Collegio dei Direttori di Dipartimento, Sapienza Università di Roma, 2018–2021.

Coordinatore del dottorato di ricerca in Informatica, Sapienza Università di Roma, 2018–2018.

Direttore del Dipartimento di Informatica, Sapienza Università di Roma, 2015–2018.

Coordinatore del dottorato di ricerca in Informatica, Sapienza Università di Roma, 2012–2015.

Direttore della scuola di dottorato di ricerca in Scienza e tecnologia dell'informazione e delle comunicazioni, Sapienza Università di Roma, 2013–2016.

Membro della commissione ricerca scientifica della Sapienza, 2009–2010.

Pubblicazioni (selezionate)

[1] M. La Morgia, A. Mei, S. Raponi, and J. Stefa, "Time-Zone Geolocation of Crowds in the Dark Web", IEEE ICDCS 2018, Atlanta, GA, USA.

[2] A. Di Luzio, A. Mei, and J. Stefa, "Uncovering Hidden Social Relationships Through Location-Based Services: The Happn Case Study", IEEE INFOCOM BigSecurity 2018, Honolulu, HI, USA.

[3] F. A. Silva, S. Kosta, M. Rodrigues, B. Silva, D. Oliveira, G. Callau, T. Maciel, A. Mei, and P. Maciel, "Mobile Cloud Performance Evaluation Using Stochastic Models", IEEE Transactions on Mobile Computing, vol. 17(5), 2018.

[4] E. Ulqinaku, L. Malisa, J. Stefa, A. Mei, and S. Capkun, "Using Hover to Compromise the Confidentiality of User Input on Android", ACM WiSec 2017, Boston, MA, USA.

[5] A. Di Luzio, A. Mei, and J. Stefa, "Consensus Robustness and Transaction De-Anonymization in the Ripple Currency Exchange System", IEEE ICDCS 2017, Atlanta, GA, USA.

[6] A. Mei, N. Piroso, and J. Stefa, "Count On Me: Reliable Broadcast and Efficient Routing in DTNs through Social Skeletons", Journal of Parallel and Distributed Computing, vol. 96, 2016.

[7] A. Di Luzio, A. Mei, and J. Stefa, "Mind Your Probes: De-Anonymization of Large Crowds Through Smartphone WiFi Probe Requests", IEEE INFOCOM 2016, San Francisco, CA, USA.

[8] E. Baccarelli, N. Cordeschi, A. Mei, M. Panella, M. Shojafar, and J. Stefa, "Energy-efficient dy- namic traffic offloading and reconfiguration of networked datacenters for big data stream mobile computing: Review, challenges, and a case study," *IEEE Network Magazine*, 2016.

[9] F. A. Silva, S. Kosta, M. Rodrigues, A. Mei, and P. Maciel, "Planning Mobile Cloud Infrastructures Using Stochastic Petri Nets and Graphic Processing Units", IEEE CloudCom 2015, poster session, Vancouver, Canada.

[10] V. C. Perta, M. V. Barbera, G. Tyson, H. Haddadi, and A. Mei, "Exploiting delay patterns for user ips identification in cellular networks," in *PETS 2015*.

[11] V. C. Perta, M. V. Barbera, and A. Mei, "Exploiting delay patterns for user ips identification in cellular networks," in *PETS 2014*.

[12] M. V. Barbera, S. Kosta, A. Mei, V. C. Perta, and J. Stefa, "Mobile offloading in the wild: Fin- dings and lessons learned through a real-life experiment with a new cloud-aware system," in *IEEE INFOCOM 2014*.

[13] A. Davoli and A. Mei, "Triton: A peer-assisted cloud storage system," in *PAPEC 2014, workshop of EUROSYS*.

[14] A. Mei, G. Morabito, P. Santi, and J. Stefa, "Social-aware stateless forwarding in pocket switched networks," *IEEE Transactions on Parallel and Distributed Computing*, vol. 26(1), 2015.

[15] A. Mei and J. Stefa, "Large-scale synthetic social mobile networks with swim," *IEEE Transactions on Mobile Computing*, vol. 13(1), 2014.

[16] M. V. Barbera, A. Mei, and V. C. Perta, "A needle in the haystack: Delay based user identification in cellular networks," in *PAM 2014*, poster session.

[17] D. Mattiacci, S. Kosta, A. Mei, and J. Stefa, "Demo abstract: Supporting interoperability of things in IoT systems," in *ACM SENSYS 2013 demo*.

[18] M. V. Barbera, A. Epasto, A. Mei, V. C. Perta, and J. Stefa, "Signals from the crowd: Uncovering social

relationships through smartphone probes," in *ACM/USENIX IMC 2013*.

[19] A. Gaeta, S. Kosta, J. Stefa, and A. Mei, "Streamsmart: P2P video streaming for smartphones through the cloud," in *IEEE SECON 2013 demo*, **Best Demo Award.**

[20] S. Kosta, V. C. Perta, J. Stefa, P. Hui, and A. Mei, "Clone2clone (c2c): Peer-to-peer networking of smartphones on the cloud," in *USENIX HOTCLOUD 2013*.

[21] M. V. Barbera, S. Kosta, A. Mei, V. C. Perta, and J. Stefa, "To offload or not to offload? the bandwidth and energy costs of mobile cloud computing," in *IEEE INFOCOM 2013*.

[22] M. V. Barbera, S. Kosta, A. Mei, V. C. Perta, and J. Stefa, "Cdroid: Towards a cloud-integrated mobile operating system," in *IEEE INFOCOM 2013 demo*, **Best Demo Award.**

[23] S. Kosta, V. C. Perta, J. Stefa, P. Hui, and A. Mei, "Clonedoc: Exploiting the cloud to leverage secure group collaboration mechanisms for smartphones," in *IEEE INFOCOM 2013 demo*.

[24] M. V. Barbera, S. Kosta, J. Stefa, P. Hui, and A. Mei, "Cloudshield: Efficient anti-malware smartphone patching with a p2p network on the cloud," in *IEEE P2P 2012*.

[25] A. Di Mauro, A. Mei, and S. Jajodia, "Secure file allocation and caching in large scale distributed systems," in *SECRYPT 2012*.

[26] A. Mei and J. Stefa, "Give2get: Forwarding in social mobile wireless networks of selfish individuals," *IEEE Transactions on Dependable and Secure Computing*, vol. 9(4), 2012.

[27] K. Marzullo, H. Meling, and A. Mei, "When you don't trust clients: Byzantine proposer fast paxos," in *IEEE ICDCS 2012*.

[28] A. Mei, N. Piroso, and B. Vavala, "Fine grained load balancing in multi-hop wireless networks," *Journal of Parallel and Distributed Computing*, vol. 72(4), 2012.

[29] A. Davoli, A. Mei, and J. Stefa, "Fan: Friendship based anonymous routing in wireless social mobile networks of malicious communities," in *IEEE EXTREMECOMM 2011*.

[30] K. Marzullo, H. Meling, and A. Mei, "Brief announcement: When you don't trust clients: Byzantine proposer fast paxos," in *DISC 2011*.

[31] A. Mei, G. Morabito, P. Santi, and J. Stefa, "Social-aware stateless forwarding in pocket switched networks," in *IEEE INFOCOM 2011 mini-conference*.

[32] G. Bianchi, A. Capossele, A. Mei, and C. Petrioli, "Flexible key exchange negotiation for wireless sensor networks," in *ACM WINTECH 2010*.

[33] A. Mei, G. Morabito, P. Santi, and J. Stefa, "Show me your friends and i'll tell you what you like," in *IEEE EXTREMECOMM 2010*.

[34] M. Conti, R. Di Pietro, A. Gabrielli, L. V. Mancini, and A. Mei, "The smallville effect: Social ties make mobile networks more secure against the node capture attack," in *IEEE MOBIWAC 2010*.

[35] S. Kosta, A. Mei, and J. Stefa, "Small world in motion (swim): Modeling communities in ad-hoc mobile networking," in *IEEE SECON 2010*.

[36] M. Conti, R. Di Pietro, L. V. Mancini, and A. Mei, "Distributed detection of clone attacks in wireless sensor networks," *IEEE Transactions on Dependable and Secure Computing*, vol. 8(5), 2011.

[37] A. Mei and J. Stefa, "Give2get: Forwarding in social mobile wireless networks of selfish individuals," in *IEEE ICDCS 2010*.

[38] R. Di Pietro, L. V. Mancini, and A. Mei, "Hierarchies of keys in secure multicast communications," *Journal of Computer Security*, vol. 18(5), 2010.

[39] A. Mei and J. Stefa, "Swim: A simple model to generate small mobile worlds," in *IEEE INFOCOM 2009*.

[40] M. Conti, R. Di Pietro, L. V. Mancini, and A. Mei, "Mobility and cooperation to thwart node capture attacks in manets," *EURASIP Journal on Wireless Communications and Networking*, 2009.

[41] M. Conti, R. Di Pietro, Luigi V. Mancini, and A. Mei, "Distributed data source verification in wireless sensor networks," *Information Fusion*, vol. 10(4), 2009.

[42] M. Conti, R. Di Pietro, A. Gabrielli, Luigi V. Mancini, and A. Mei, "The quest for mobility model to analyse security in mobile ad hoc networks," in *WWIC 2009*.

[43] S. Dziembowski, A. Mei, and A. Panconesi, "On active attacks on sensor network key distribution schemes," in *ALGOSENSORS 2009*.

[44] A. Mei and J. Stefa, "Routing in outer space: Fair traffic load in multi-hop wireless networks," *IEEE Transactions on Computers*, vol. 58(6), 2009.

[45] A. Mei, A. Panconesi, and J. Radhakrishnan, "Unassailable sensor networks," in *ACM/CreateNet SECURECOMM 2008*.

[46] A. Mei and J. Stefa, "Routing in outer space: Fair traffic load in multi-hop wireless networks," in *ACM MOBIHOC 2008*.

[47] M. Conti, R. Di Pietro, L. V. Mancini, and A. Mei, "Emergent properties: Detection of the node-capture attack in mobile wireless sensor networks," in *ACM WISEC 2008*.

[48] A. Mei and J. Stefa, "Routing in outer space," in *IEEE INFOCOM 2008 mini-conference*.

[49] R. Di Pietro, Luigi V. Mancini, A. Mei, A. Panconesi, and J. Radhakrishnan, "Redoubtable sensor networks," *ACM Transactions on Information and System Security*, vol. 11(3), 2008.

[50] M. Conti, R. Di Pietro, L. V. Mancini, and A. Mei, "A randomized, efficient, and distributed protocol for the detection of node replication attacks in wireless sensor networks," in *ACM MOBIHOC 2007*.

[51] R. Di Pietro, L. V. Mancini, and A. Mei, "Towards treath-adaptive dynamic fragment replication in large scale distributed systems," in *IEEE HOT-P2P 2007*, Invited paper.

[52] L. V. Mancini, A. Mei, and V. T. Patil, "Addressing interoperability issues in access control frameworks," in *ACM ASIACCS 2007*.

[53] R. Di Pietro, Luigi V. Mancini, A. Mei, A. Panconesi, and J. Radhakrishnan, "Sensor networks that are provably resilient," in *IEEE/CreateNet SECURECOMM 2006*.

[54] M. Conti, R. Di Pietro, L. V. Mancini, and A. Mei, "Requirements and open issues in distributed detection of node identity replicas in WSNs," in *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2006.

[55] G. Zanin, A. Mei, and L. V. Mancini, "A secure and efficient large scale distributed system for object sharing," in *IEEE ICDCS 2006*.

[56] R. Di Pietro, L. V. Mancini, and A. Mei, "Energy efficient node-to-node authentication and communication confidentiality in wireless sensor networks," *Wireless Networks*, vol. 12(12), 2006.

[57] A. Mei and R. Rizzi, "Hypercube computations on partitioned optical passive star networks," *IEEE Transactions on Parallel and Distributed Systems*, vol. 17(6), 2006.

[58] A. Mei and R. Rizzi, "On-line permutation routing in partitioned optical passive star networks," *IEEE Transactions on Computers*, vol. 55(12), 2006.

[59] D. Dubhashi, A. Mei, A. Panconesi, J. Radhakrishnan, and A. Srinivasan, "Fast distributed algorithms for (weakly) connected dominating sets and linear-size skeletons," *Journal of Computer and System Sciences*, vol. 71(4), 2005.

[60] G. Zanin, A. Mei, and L. V. Mancini, "Towards a secure dynamic allocation of files in large scale distributed file systems," in *IEEE HOT-P2P 2004*.

[61] R. Di Pietro, L. V. Mancini, and A. Mei, "Increasing authentication and communication confidentiality in wireless sensor networks," in *Sensor Networks Operations*. IEEE Press, 2004.

[62] R. Di Pietro, L. V. Mancini, A. Mei, A. Panconesi, and J. Radhakrishnan, "Connectivity properties of secure wireless sensor networks," in *ACM SASN 2004*.

[63] R. Di Pietro, L. V. Mancini, and A. Mei, "Efficient and resilient key discovery based on pseudo-random key pre-deployment," in *Proceedings of the IEEE Workshop on Wireless, Mobile, and Ad Hoc Networks (WMAN)*, April 2004.

[64] A. A. Bertossi and A. Mei, "Time and work optimal simulation of basic reconfigurable meshes on hypercubes," *Journal of Parallel and Distributed Computing*, vol. 64(1), 2004.

[65] R. Di Pietro, L. V. Mancini, and A. Mei, "Key management for high bandwidth secure multicast," *Journal of Computer Security*, vol. 12(5), 2004.

[66] R. Di Pietro, L. V. Mancini, and A. Mei, "Random key assignment for secure wireless sensor networks," in *ACM SASN 2003*.

[67] A. Mei and R. Rizzi, "Mapping hypercube computations onto partitioned optical passive star networks," in *IEEE/ACM HIPC 2003*.

[68] A. Mei, L. V. Mancini, and S. Jajodia, "Secure dynamic fragment and replica allocation in large- scale distributed file systems," *IEEE Transactions on Parallel and Distributed Systems - Special Issue on Security*, vol. 14(9), 2003.

[69] R. Di Pietro, L. V. Mancini, and A. Mei, "A time driven methodology for key dimensioning in multicast communications," in *IFIP SEC 2003*.

[70] D. Dubhashi, A. Mei, A. Panconesi, J. Radhakrishnan, and A. Srinivasan, "Fast distributed algo-

rithms for (weakly) connected dominating sets and linear-size skeletons," in *ACM/SIAM SODA 2003*.

[71] A. Mei and R. Rizzi, "Routing permutations in partitioned optical passive stars networks," *Journal of Parallel and Distributed Computing*, vol. 63(9), 2003.

[72] A. Mei and R. Rizzi, "Routing permutations in partitioned optical passive stars networks," in *IEEE IPDPS 2002*, **Best Paper Award**.

[73] A. A. Bertossi and A. Mei, "Optimal segmented scan and simulation of reconfigurable architectures on fixed-connection networks," in *IEEE/ACM HIPC 2000*.

[74] A. A. Bertossi and A. Mei, "A residue number system on reconfigurable mesh with application to prefix sums and approximate string matching," *IEEE Transactions on Parallel and Distributed Systems*, vol. 11(11), 2000.

[75] A. A. Bertossi and A. Mei, "Constant time dynamic programming on directed reconfigurable networks," *IEEE Transactions on Parallel and Distributed Systems*, vol. 11(6), 2000.

[76] R. P. S. Sidhu, S. Wadhwa, A. Mei, and V. K. Prasanna, "A self-reconfigurable gate array architecture," in *FPL 2000*.

[77] A. Dandalis, A. Mei, and V. K. Prasanna, "Domain specific mapping for solving graph problems," in *IEEE RAW, workshop of IEEE IPDPS 1999*.

[78] R. P. S. Sidhu, A. Mei, and V. K. Prasanna, "Genetic programming using self-reconfigurable FPGAs," in *FPL 1999*.

[79] R. P. S. Sidhu, A. Mei, and V. K. Prasanna, "String matching on multicontext FPGAs using self-reconfiguration," in *ACM FPGA 1999*, **EE-systems Outstanding Research Paper Award for 2000 of the University of Southern California**.

[80] A. A. Bertossi and A. Mei, "New number representation and conversion techniques on reconfigurable mesh," in *IEEE/ACM HIPC 1998*, **Best Paper Award.**

[81] A. A. Bertossi and A. Mei, "P-bandwidth priority queues on reconfigurable tree of meshes," *Journal of Parallel and Distributed Computing*, vol. 40(2), 1997.