

## *Curriculum Vitae (Short) - Prof. Luciano Paschoal Gaspar*

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Federal University of Rio Grande do Sul (UFRGS)  
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### **Professional Preparation**

- Federal University of Rio Grande do Sul (UFRGS), Institute of Informatics, B.Sc., 1995.
- Federal University of Rio Grande do Sul (UFRGS), Institute of Informatics, M.Sc., 1998.
- Federal University of Rio Grande do Sul (UFRGS), Institute of Informatics, Ph.D., 2002.

### **Appointments**

- Federal University of Rio Grande do Sul (UFRGS), Institute of Informatics
  - Deputy Dean, 2016–Present.
  - Associate Professor, 2006–Present.

### **Selected Publications**

- G.Bueno; M.Saquetti; P.Rodrigues *et al.* “Managing Virtual Programmable Switches: Principles, Requirements, and Design Directions.” In *IEEE Communications Magazine*, vol. 60, n. 2, pp. 53–59, 2022.
- G.Pretto; B.Dalmazo; J.Marques *et al.* “Janus: A Framework to Boost HPC Applications in the Cloud Based on SDN Path Provisioning.” In *Cluster Computing*, vol. 25, pp. 947–964, 2022.
- A.Ilha; A.Lapoli; J.Marques; L.Gaspary. “Euclid: A Fully In-Network, P4-based Approach for Real-Time DDoS Attack Detection and Mitigation.” In *IEEE Trans. Network and Service Management*, vol. 18, n. 3, pp. 3121–3139, 2021.
- B.Dalmazo; J.Marques; L.Costa *et al.* “A Systematic Review on Distributed Denial of Service Attack Defense Mechanisms in Programmable Networks.” In *Int J Network Mgmt*, vol. 31, n. 6, 2021.
- W.Cordeiro; L.Gaspary; R.Beltran *et al.* “Revisiting the Coupon Collector’s Problem to Unveil Users’ Online Sessions in Networked Systems.” In *Peer-to-Peer Netw. Appl.*, vol. 14, n. 2, pp. 687–707, 2021.
- J.Marques; K.Levchenko; L.Gaspary. “IntSight: Diagnosing SLO Violations with In-Band Network Telemetry.” In *ACM CoNEXT 2020 - 16th International Conference on emerging Networking EXperiments and Technologies*, pp. 421–434, 2020.
- L. Bays, L. Gaspary. “Reality shock in virtual network embedding: Flexibilizing demands for dealing with multiple operational requirements in SDNs.” In *J. Netw. Comput. Appl.*, vol. 153, 2020.
- N. Kagami, R. da Costa Filho, L. Gaspary. “CAPEST: Offloading Network Capacity and Available Bandwidth Estimation to Programmable Data Planes.” In *IEEE Trans. Network and Service Management*, vol. 17, n. 1, pp. 175–189, 2020.
- R. da Costa Filho, M. Luizelli, S. Petrangeli, M. Vega, J. van der Hooft, T. Wauters, F. De Turck, L. Gaspary. “Dissecting the Performance of VR Video Streaming through the VR-EXP Experimentation Platform.” In *ACM TOMM*, vol. 15, n. 4, pp. 111:1–111:23, 2020.
- G. Miotto, M. Luizelli, W. Cordeiro, L. Gaspary. “Adaptive placement & chaining of virtual network functions with NFV-PEAR.” In *J. Internet Serv. Appl.*, vol. 10, n.1, pp. 3:1–3:19, 2019.
- J. Marques, M. Luizelli, R. da Costa Filho, L. Gaspary. “An optimization-based approach for efficient network monitoring using in-band network telemetry.” In *J. Internet Serv. Appl.*, vol. 10, n.1, pp. 12:1–12:20, 2019.
- R. da Costa Filho, W. Lautenschläger, N. Kagami, M. Luizelli, V. Roesler, L.Gaspary. “Scalable QoE-aware Path Selection in SDN-based Mobile Networks.” In *IEEE INFOCOM 2018 - IEEE Conference on Computer Communications*, 2018.

- J. Wickboldt, M. Guerreiro, L. Granville, L. Gaspar, M. Schwarz, C. Guok, V. Chaniotakis, A. Lake, J. Macauley. "MEICAN: Simplifying DCN Life-Cycle Management from End-User and Operator Perspectives in Inter-Domain Environments." In *IEEE Communications Magazine*, vol. 56, n. 1, pp. 179–187, 2018.
- I. Zacarias, L. Gaspar, A. Kohl, R. Fernandes, J. Stocchero, E. de Freitas. "Combining Software-Defined and Delay-Tolerant Approaches in Last-Mile Tactical Edge Networking." In *IEEE Communications Magazine*, vol. 55, n. 10, pp. 22–29, 2017.
- R. Antunes, M. Lehmann, R. Mansilha, L. Gaspar, M. Barcellos. "NDNrel: A mechanism based on relations among objects to improve the performance of NDN." In *J. Network and Computer Applications*, vol. 87, pp. 73–86, 2017.
- W. Cordeiro, J. Marques, L. Gaspar. "Data Plane Programmability Beyond OpenFlow: Opportunities and Challenges for Network and Service Operations and Management." In *J. Network Syst. Manage.*, vol. 25, n. 4, pp. 784–818, 2017.
- M. Luizelli, W. Cordeiro, L. Buriol, L. Gaspar. "A Fix-and-Optimize Approach for Efficient and Large Scale Virtual Network Function Placement and Chaining." In *Computer Communications*, vol. 102, pp. 67–77, 2017.
- L. Bays, R. Oliveira, L. Buriol, M. Barcellos, L. Gaspar. "A Toolset for Efficient Privacy-oriented Virtual Network Embedding and its Instantiation on SDN/OpenFlow-based Substrates." In *Computer Communications*, vol. 82, pp. 13–27, 2016.
- W. Cordeiro, F. Santos, M. Barcellos, L. Gaspar, H. Kavalionak, A. Guerrieri, A. Montresor. "Making Puzzles Green and Useful for Adaptive Identity Management in Large-scale Distributed Systems." In *Computer Networks*, vol. 95, pp. 97–114, 2016.
- R. Oliveira, D. Marcon, L. Bays, M. Neves, L. Gaspar, D. Medhi, M. Barcellos. "Opportunistic Resilience Embedding (ORE): Toward Cost-efficient Resilient Virtual Networks." In *Computer Networks*, vol. 89, no. 4, pp. 59–77, 2015.
- M. Luizelli, L. Bays, L. Buriol, M. Barcellos, L. Gaspar. "Piecing Together the NFV Provisioning Puzzle: Efficient Placement and Chaining of Virtual Network Functions." In *14th IFIP/IEEE International Symposium on Integrated Network Management*, 2015.
- L. Bays, R. Oliveira, M. Barcellos, L. Gaspar, E. Madeira. "Virtual Network Security: Threats, Countermeasures, and Challenges." In *Journal of Internet Services and Applications*, vol. 6, no. 1, pp. 1–19, 2015.
- F. Santos, W. Cordeiro, L. Gaspar, M. Barcellos. "Beyond Pollution and Taste: A Tag-based Strategy to Increase Download Quality in P2P File Sharing Systems." In *Computer Communications*, v. 36, p. 191–202, 2013.
- M. Lehmann, F. Santos, L. Gaspar, M. Barcellos. "Denial-of-Service Attacks and Countermeasures on BitTorrent." In *Computer Networks*, v. 56, p. 3479–3498, 2012.
- W. Cordeiro, F. Santos, G. Mauch, M. Barcellos, L. Gaspar. "Identity Management based on Adaptive Puzzles to Protect P2P Systems from Sybil Attacks". In *Computer Networks*, v. 56, p. 2569–2589, 2012.
- F. Santos, W. Cordeiro, L. Gaspar, M. Barcellos. "Funnel: Choking Polluters in BitTorrent File Sharing Communities". In *IEEE Transactions on Network and Service Management*, v. 8, p. 310–321, 2011.

## Synergistic Activities

- **Recent Awards**
  - CNPq Research Fellow - Bolsista de Produtividade Científica CNPq 1D, 2008–Present.
  - Don Stokesberry Award at the 36th IEEE/IFIP NOMS, 2023.
  - Best Student Paper Award at the 16th IFIP/IEEE IM for the paper “Offloading Real-time DDoS Attack Detection to Programmable Data Planes”, 2019.
  - Best Reviewer Award at the 15th IEEE/IFIP NOMS, 2016.
  - Best Student Paper Award at the 14th IFIP/IEEE IM for the paper “Piecing Together the NFV Provisioning Puzzle: Efficient Placement and Chaining of Virtual Network Functions”, 2015.
  - Brazilian Computer Society Distinguished Member, 2014.
  - Microsoft Azure Research Award, 2014.
  - Honorable Mention at the Dissertation Digest of the 14th IEEE/IFIP NOMS for the Ph.D. Thesis by Flávio Roberto Santos entitled “Slowing Down to Speed Up: Protecting Users Against Massive Attacks in Content Distribution Systems”, 2014.
  - Microsoft Research Latin American Ph.D. Fellowship Award 2011 granted to the student Weverton Luis da Costa Cordeiro, 2011.
  - Best Student Paper Award at the 12th NOMS for the paper “Choking Polluters in BitTorrent File Sharing Communities”, 2010.
- **Recent Professional Activity**
  - National Science Foundation (NSF) project review panelist, 2022.
  - Executive Director of the National Laboratory on Computer Networks (LARC), 2012–2014.
  - Managing Director of the Brazilian Computer Society (SBC), 2009–2013.
  - Director of the Technical and Scientific Council of LARC, 2010–2012.
  - Chair of the Special Interest Group on Information and Computer System Security (SEG) of the SBC, 2008–2010.
- **Recent Talks**
  - Keynote “Revitalizing Network and Service Management with Programmable Data Planes: Progress, Challenges, and Opportunities”, CNSM 2021, 2021.
  - Panel “Networking Education During and After the Pandemic”, theNetworkingChannel, 2021.
  - Course “Seguridad para SDN y Planos de Datos Programables”, Universidad de Antioquia, Colombia, 2019.
  - Course “Avances Tecnológicos que Transforman”, Universidad de Medellin, Colombia, 2019.
- **Recent Conference Organization**
  - Student Travel Grant Co-Chair of the 2022 IEEE GLOBECOM, 2022.
  - Student Travel Grant Co-Chair of the 16th IFIP/IEEE IM, 2019.
  - Student Travel Grant Chair of the 14th CNSM, 2018.
  - Tutorial Co-Chair of the 16th IEEE/IFIP NOMS, 2018.
  - Publicity Co-Chair of the 13th CNSM, 2017.
  - Publication Co-Chair of the 15th IFIP/IEEE IM, 2017.
  - Panel Chair of the 35th SBC SBRC, 2017.
  - Publicity Co-Chair of the 12th CNSM, 2016.
  - Tutorial Co-Chair of the 2nd IEEE NetSoft, 2016.
  - Student Travel Grant Chair of the 15th IEEE/IFIP NOMS, 2016.
  - Tutorial Co-Chair of the 14th IFIP/IEEE IM, 2015.
  - General Co-Chair of the 10th CNSM, 2014.
  - TPC Co-chair of the 32nd SBC SBRC, 2014.
  - Experience Session Co-chair of the 14th IEEE/IFIP NOMS, 2014.
  - Posters Co-chair of the 13th IFIP/IEEE IM, 2013.
  - TPC Co-chair of the 13th IEEE/IFIP NOMS, 2012.
  - TPC Co-Chair of the 9th SBC Brazilian Symposium on Information and Computer System Security (SBSeg), 2009.

- General Co-Chair of the 8th SBC SBSeg, 2008.
- General Co-Chair of the 4th LANOMS, 2005.
- **Editorial Board Service**
  - Editor-in-Chief of the Springer Journal of Network and Systems Management (JNSM), 2019–2022.
  - Guest Editor of the IEEE Communications Magazine, Feature Topic on Advances in Networking Software, 2017.
  - Associate Managing Editor of the Springer Journal of Network and Systems Management (JNSM), 2016–2018.
  - Publications Committee member of the IEEE SDN Initiative, 2016-2017.
  - Associate Editor of JNSM, 2012–2016.
  - Associate Editor of the Wiley International Journal of Network Management (IJNM), 2012–Present.
- **Program Committee Service**
  - TPC member of several conferences, including CNSM, IM, NOMS, SBRC and the SBSeg, 2004–Present.