Vincenzo Massimiliano Gulisano - Curriculum vitae

Personal Information

Name: Vincenzo Massimiliano Gulisano 19840415-1998 (ORCID: 0000-0002-2136-9179)
Web: `vincenzogulisano.com`, `scholar.google.com/citations?user=C5IdLt4AAAAJ&hl`.

Research interests

Data streaming, parallel and elastic analysis, data structures, big data analysis in digital systems, smart grids and vehicular networks.

Academic Experience (Current / Previous positions)

[2018–] Associate Professor/Docent, Computer Science and Engineering, Chalmers University of Technology, Sweden.
[2015–2018] Assistant Professor/Forskarassistent, Computer Science and Engineering, Chalmers University of Technology, Sweden.
[2013–2014] Postdoc, Computer Science and Engineering, Chalmers University of Technology, Sweden.

Education / Degrees

[2017] Docent Degree, Chalmers University of Technology, Sweden.
[2013] PhD in Computer Science, Polytechnic University of Madrid, Spain.
[2008] M. Sc. In Computer Science, University of Trieste, Italy.

Fellowships and Awards

[2017] Best Paper Award (Maximizing Determinism in Stream Processing Under Latency Constraints) at the ACM International Conference on Distributed Event-Based Systems (DEBS).
[2016] Shortlisted for the pedagogical prize of the IT student union, Chalmers University of Technology, Sweden.
[2015] Best Grand Challenge Solution Award (Deterministic Real-Time Analytics of Geospatial Streams through ScaleGate Objects). ACM DEBS.
[2008] PhD Scholarship co-financed by EU projects. Polytechnic University of Madrid Spain.

Grants / Funding

[2015–2021] Various proposals within Chalmers' Areas of Advance units (3 MSEK)
[2020–2022] AutoSPADA: Automotive Stream Processing and Distributed Analytics. VINNOVA (co-applicant with Volvo, Alkit, Fraunhofer-Chalmers Centre, 15.8 MSEK).
[2017–2020] HARE: Self-deploying and Adaptive Data Streaming Analytics in Fog Architectures. Vetenskapsrådet Starting Grant (main applicant, 3.9 MSEK).
[2017–2019] OODIDA: On-board Off-board Distributed Data Analytics. VINNOVA (co-applicant with Volvo, Volvo Trucks, Alkit, Fraunhofer-Chalmers Centre, 21.4 MSEK).
[2017–2019] Making cities more sustainable: using big and continuous data to understand urban mobility and congestions. FORMAS (co-applicant with S. Yeh, M. Papatriantafilou, 3 MSEK).
[2016–2020] Future factories in the Cloud (FiC). Stiftelsen för Strategisk Forskning (involved in the proposal shaping, participating as member of the group of the co-applicant M. Papatriantafilou, Mälardalen University and Uppsala University, 30 MSEK).
[2016–2020] STAMINA: Processing and analysis of data STreams in Advanced Metering INfrastructures for Awareness and Adaptiveness in electricity grids. Wallenberg Autonomous Systems

Programs (WASP), Sweden (involved in the proposal shaping, participating as member of the group of the co-applicant M. Papatriantafilou, 2.2 MSEK).

[2015–2016] EXAMINE: Extracting useful information out of data in AMI networks. Göteborg Energi, Sweden (co-applicant with M. Almgren, O. Landsiedel, M. Papatriantafilou, 1.4 MSEK)

Supervision of Graduate Students and Postdoctoral Fellows (Chalmers University of Technology, Sweden)

[2019–] Ismail Butun (Postdoc, co-supervisor).
[2018–] Bastian Havers (PhD student, main supervisor).
[2017–] Dimitris Palyvos-Giannas (PhD student, main supervisor).
[2017–] Romaric Duviganu (Postdoc, co-supervisor).
[2016–] Hannaneh Najdataei (PhD student, co-supervisor).
[2016–] Amir Keramatian (PhD student, co-supervisor).
[2016–2020] Joris van Rooij (PhD student, co-supervisor).
[2015–2016] Stefania Costache (Postdoc, co-supervisor).
[2014–2016] Viktor Botev (Research Engineer, Co-supervisor).
[2013–] >70 students for bachelor/master theses

Professional Development

[2016] Leadership Training for High-Potential Assistant Professors, Chalmers University of Technology (8 full days).
[2012–2014] Supervision and Leadership courses for a total of 18 ETCS, Chalmers University of Technology.
[2020] Diploma of Higher Education.

Teaching activities

[2013-] Operating Systems (Course responsible). Master course, Chalmers University of Technology.
[2016-2021] Design and Development of Embedded Systems. Undergraduate course, Gothenburg University. Lectures about Operating Systems.
[2016-2021] Technical writing in computer systems and networks (course responsible). Master course, Chalmers University of Technology
[2013-] ICT Support for Adaptiveness and (Cyber)security in the Smart Grid. Master course, Chalmers University of Technology. Lecture about Data Streaming.
[2019-2020] Course on parallel scientific computing on CPU/GPU architectures. PhD course.
[2018-2020] Advanced Course on Distributed Systems. Master course, Chalmers University of Technology. Lectures about Data Streaming.
[2011-2012] Algorithms and Data Structures. Undergraduate course, Technical University of Madrid.

Invited Talks

[2021] Scalable and Elastic Stream Processing in Cloud and Edge Computing. Invited talk at Outscale (France).
[2021] Motivations and Challenges for Stream Processing in Edge Computing. Invited talk at Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DaSP) ICPE Workshop).
[2020] The Role of Event-Time Order in Data Streaming Analysis. Tutorial at 14th ACM International Conference on Distributed Event-Based Systems (DEBS).
[2019] The data streaming processing paradigm and its use in modern Fog architectures. Invited lecture at the University of Trieste (Italy).

[2017] Data streaming in IoT and Big Data Analysis. Lecture in PhD course (Mälardalens högskola).
[2016] The data streaming paradigm and its use in Fog architectures. EBSIS summer school (Sinaia, Romania), `http://ebsis.info.uaic.ro/school2016/`.
[2015] Benefits of fine-grained synchronization in deterministic efficient stream processing. Yahoo!.
[2013] An overview of Data Streaming and Stream Processing Engines. Instituto de Engenharia de Sistemas e Computadores Investigação e Desenvolvimento em Lisboa (INESC-ID).

Community Service

Conference Program Committee Member (recent entries)
[2015-2022] ACM Symposium on Applied Computing (SAC) – Dependable, Adaptive, and Trustworthy Distributed Systems track (DADS)
[2021] IEEE International Conference on Autonomic Computing and Self-Organizing Systems – ACSOS
[2020-2021] ACM/IFIP/USENIX International Middleware Conference. Research track.
[2015-2017,2019-2021] ACM International conference on Distributed Event-Based Systems (DEBS) – Research track (also in Demos and Posters in 2020).
[2021] International Workshop on Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DASP)
[2020] 20th International Conference on Distributed Applications and Interoperable Systems (DAIS)

Steering Committee
[2017] International Conference on Smart Grids, Green Communications and IT Energy-aware Technologies (EnERGY)

Grand Challenge Chair for the ACM International conference on Distributed Event-Based Systems (DEBS) 2016-2020

Grants Chair
[2020] EuroSys

Publication Chair
[2015] Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA)

Publicity Chair
[2019] 20th ACM/IFIP International Conference MIDDLEWARE
[2014] International Symposium on Research in Attacks, Intrusions and Defenses (RAID)

Workshop Chair
[2016] International Federated Conference on Distributed Computing Techniques (DisCoTec)

Reviewer (selected)
Elsevier Journal of Computer and System Sciences
Elsevier Vehicular Communications
IEEE Transactions on Parallel and Distributed Systems
IEEE Access
Knowledge and Information Systems (KAIS) Journal
Journal of Parallel and Distributed Computing (JPDC)
IEEE International Parallel & Distributed Processing Symposium (IPDPS)
IEEE Symposium on Reliable Distributed Systems (SRDS)

Institutional responsibilities

[2020–] Director of the Master Program in Computers Systems and Networks

[2016–] Member of Chalmers' Areas of Advance Electricity Systems Advisory Board, a group of researchers create to foster inter-department research and collaboration.

[2018–2020] Member of the strategic recruitment group, involved in the planning of tenured positions at Chalmers' department of Computer Science and Engineering.

[2015–2016] Member of the work environment group, involved in activities for studying and improving the work environment at Chalmers' department of Computer Science and Engineering.

Doctoral committee

[2021] External Opponent / Evaluator for Zainab Abbas, Scalable Streaming Graph and Time Series Analysis Using Partitioning and Machine Learning. KTH Royal Institute of Technology.

[2021] External Opponent / Evaluator for Víctor Rampérez Martín, A Technology-Agnostic Approach to Auto-Scale Services in Heterogeneous Clouds. Polytechnic University of Madrid.

[2020] Chairman of the PhD defense for Nasser Nowdehi, Automotive Communication Security Methods and Recommendations for Securing In-vehicle and V2X Communications. Chalmers University of Technology.

[2019] Backup Grading Committee member for Beshr Al Nahas, Synchronous and Concurrent Transmissions for Consensus in Low-Power Wireless. Chalmers University of Technology.

Present and past collaborations

V. Kalogeraki (Athens University of Economics and Business), M. Fratarcangeli (Chalmers University of Technology), Y. Sourdis (Chalmers University of Technology), M. Papatriantafilou (Chalmers University of Technology), P. Tsigas (Chalmers University of Technology), E. Medvet (University of Trieste), L. Bortolussi (University of Trieste), G. Mencagli (University of Pisa), R. Duvignau (Chalmers University of Technology), L. Göransson (Chalmers University of Technology), A. Skoogh (Chalmers University of Technology), A. Chaitanya Koppisetty (Volvo Cars), A. V. Papadopoulos (Mälardalen University), K. Clegg (University of York), R. Hawkins (University of York), P. Trancoso (Chalmers University of Technology), U. Larson (Ericsson), M. Almgren (Chalmers University of Technology), R. Jimenez-Peris (Polytechnic University of Madrid), M. Patiño-Martinez (Polytechnic University of Madrid), C. Soriente (NEC Labs), P. Valduriez (Inria), H. Ziekow (Hochschule Furtwangen), S. Voulgaris (Athens University of Economics) and Zbigniew Jerzak (SAP, Zalando).

Peer-reviewed Conference Publications

1. Ananke: A Streaming Framework for Live Forward Provenance. Dimitris Palyvos-Giannas, Bastian Havers, Marina Papatriantafilou, Vincenzo Gulisano. 47th International Conference on Very Large Data Bases (VLDB). 2021.

2. TinTiN: Travelling in Time (if Necessary) to deal without-of-order data in streaming aggregation. Joris van Rooij, Vincenzo Gulisano, Marina Papatriantafilou. The 14th ACM International Conference on Distributed Event-Based Systems (DEBS) 2020.

3. Small-Scale Communities Are Sufficient for Cost- and Data-Efficient Peer-to-Peer Energy Sharing. Romaric Duvignau, Verena Heinisch, Lisa Göransson, Vincenzo Gulisano and Marina Papatriantafilou. The Eleventh ACM International Conference on Future Energy Systems (e-Energy) 2020.

4. PARMA-CC: Parallel Multistage Approximate Cluster Combining. Amir Keramatian, Vincenzo Gulisano, Marina Papatriantafilou and Philippas Tsigas. 21st International Conference on Distributed Computing and Networking (ICDCN) 2020.

5. Time-SWAD: A Dataflow Engine for Time-based Single Window Stream Aggregation. Prajith Ramakrishnan Geethakumari, Vincenzo Gulisano, Pedro Trancoso, Ioannis Sourdis. International Conference on Field-Programmable Technology (FPT) 2019.

6. Automatic Translation of Spatio-Temporal Logics to Streaming-Based Monitoring Applications for IoT-Equipped Autonomous Agents. Luca Bortolussi, Vincenzo Gulisano, Eric Medvet, Dimitris Palyvos-Giannas. International Workshop on Middleware and Applications for the Internet of Things (M4IoT). ACM/IFIP/USENIX International Middleware Conference. 2019.

7. Querying Large Vehicular Networks: How to Balance On-Board Workload and Queries Response Time? Romaric Duvignau, Bastian Havers, Vincenzo Gulisano, Marina Papatriantafilou. 22nd Intelligent Transportation Systems Conference (ITSC) 2019.

8. Adaptive Stream-based Shifting Bottleneck Detection in IoT-based Computing Architectures. Hannaneh Najdataei, Mukund Subramaniyan, Vincenzo Gulisano, Anders Skoogh, Marina Papatriantafilou. 24th IEEE Conference on Emerging Technologies and Factory Automation (ETFA) 2019.

9. Haren: A Framework for Ad-Hoc Thread Scheduling Policies for Data Streaming Applications. Dimitris Palyvos-Giannas, Vincenzo Gulisano, Marina Papatriantafilou. The 13th ACM International Conference on Distributed Event-Based Systems (DEBS) 2019.

10. STRETCH: Scalable and Elastic Deterministic Streaming Analysis with Virtual Shared-Nothing Parallelism.Hannaneh Najdataei, Yiannis Nikolakopoulos, Marina Papatriantafilou, Philippas Tsigas, Vincenzo Gulisano. The 13th ACM International Conference on Distributed Event-Based Systems (DEBS) 2019.

11. Stream-IT: Continuous and dynamic processing of production systems data – throughput bottlenecks as a case-study. Hannaneh Najdataei, Mukund Subramaniyan, Vincenzo Gulisano, Anders Skoogh, Marina Papatriantafilou. 28th International Symposium on Industrial Electronics (ISIE) 2019.

12. DRIVEN: a framework for efficient Data Retrieval and clustering in Vehicular Networks. Bastian Havers, Romaric Duvignau, Hannaneh Najdataei, Vincenzo Gulisano, Ashok Chaitanya Koppisetty, Marina Papatriantafilou. 35th IEEE International Conference on Data Engineering (ICDE) 2019.

13. Streaming Piecewise Linear Approximation for Efficient Data Management in Edge Computing. Romaric Duvignau, Vincenzo Gulisano, Marina Papatriantafilou, Vladimir Savic. ACM/SIGAPP Symposium on Applied Computing (SAC) 2019.

14. GeneaLog: Fine-Grained Data Streaming Provenance at the Edge. Dimitris Palyvos Giannas, Vincenzo Gulisano and Marina Papatriantafilou. ACM/IFIP International Middleware Conference. 2018.

15. Service Level Agreements for Safe and Configurable Production Environments. Mohammad Ashjaei, Kester Clegg, Lorenzo Corneo, Richard Hawkins, Omar Jaradat, Vincenzo Massimiliano Gulisano, Yiannis Nikolakopoulos. IEEE 23rd International Conference on Emerging Technologies and Factory Automation (ETFA) 2018.

16. MAD-C: Multi-stage Approximate Distributed Cluster-combining for obstacle detection and localization. Amir Keramatian, Vincenzo Gulisano, Marina Papatriantafilou, Philippas Tsigas and Yiannis Nikolakopoulos. Workshop on Fog-to-Cloud Distributed Processing, Euro-Par 2018.

17. LoCoVolt: Distributed Detection of Broken Meters in Smart Grids through Stream Processing. Joris van Rooij, Vincenzo Gulisano, Marina Papatriantafilou. The 12th ACM International Conference on Distributed Event-Based Systems (DEBS) 2018.

18. Continuous and Parallel LiDAR Point-cloud Clustering. Hannaneh Najdataei, Yiannis Nikolakopoulos, Vincenzo Gulisano, Marina Papatriantafilou. 38th IEEE International Conference on Distributed Computing Systems (ICDCS) 2018.

19. eChIDNA: Continuous Data Validation in Advanced Metering Infrastructures. Joris van Rooij, Johan Swetzén,

Vincenzo Gulisano, Magnus Almgren, Marina Papatriantafilou. 5th IEEE International Energy Conference (EN-ERGYCON). 2018.

20. Single Window Stream Aggregation using Reconfigurable Hardware. Prajith Ramakrishnan Geethakumari, Vincenzo Gulisano, Bo Joel Svensson, Pedro Trancoso, Ioannis Sourdis. 2017 International Conference on Field-Programmable Technology.

21. Viper: Communication-Layer Determinism and Scaling in Low-Latency Stream Processing. Ivan Walulya, Yiannis Nikolakopoulos, Vincenzo Gulisano, Marina Papatriantafilou and Philippas Tsigas. Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DaSP) Workshop, Euro-Par 2017.

22. Performance Modeling of Stream Joins. Vincenzo Gulisano, Alessandro Vittorio Papadopoulos, Yiannis Nikolakopoulos, Marina Papatriantafilou and Philippas Tsigas. The 11th ACM International Conference on Distributed Event-Based Systems (DEBS) 2017.

23. **(Best paper award)** Maximizing Determinism in Stream Processing Under Latency Constraints. Nikos Zacheilas, Vana Kalogeraki, Yiannis Nikolakopoulos, Vincenzo Gulisano, Marina Papatriantafilou and Philippas Tsigas. The 11th ACM International Conference on Distributed Event-Based Systems (DEBS) 2017.

24. Detecting Non-Technical Energy Losses through Structural Periodic Patterns in AMI data. Viktor Botev, Magnus Almgren, Vincenzo Gulisano, Olaf Landsiedel, Marina Papatriantafilou, Joris van Rooij. Workshop on Big Data in Smart Grids (BDSG) – IEEE International Conference on Big Data (IEEE Big Data) 2016.

25. BES – Differentially Private and Distributed Event Aggregation in Advanced Metering Infrastructures. Vincenzo Gulisano, Valentin Tudor, Magnus Almgren and Marina Papatriantafilou. 2nd ACM Cyber-Physical System Security Workshop (CPSS) (held in conjunction with ACM AsiaCCS), 2016.

26. ScaleJoin: a Deterministic, Disjoint-Parallel and Skew-Resilient Stream Join. Vincenzo Gulisano, Yiannis Nikolakopoulos, Marina Papatriantafilou, Philippas Tsigas. IEEE International Conference on Big Data (IEEE Big Data) 2015.

27. Online and Scalable Data Validation in Advanced Metering Infrastructures. Vincenzo Gulisano, Magnus Almgren, Marina Papatriantafilou. The 5th IEEE PES Innovative Smart Grid Technologies (ISGT) European 2014 Conference.

28. METIS: a Two-Tier Intrusion Detection System for Advanced Metering Infrastructures. Vincenzo Gulisano, Magnus Almgren, Marina Papatriantafilou. 10th International Conference on Security and Privacy in Communication Networks (SecureComm) 2014.

29. Concurrent Data Structures for Efficient Streaming Aggregation (brief announcement). Daniel Cederman, Vincenzo Gulisano, Yiannis Nikolakopoulos, Marina Papatriantafilou, Philippas Tsigas. The 26th Annual ACM Symposium on Parallelism in Algorithms and Architectures (SPAA) 2014.

30. T-Fuzz: Model-Based Fuzzing for Robustness Testing of Telecommunication Protocols. William Johansson, Martin Svensson, Ulf Larson, Magnus Almgren, Vincenzo Gulisano. 7th International Conference on Software Testing, Verification and Validation (ICST) 2014.

31. A Scalable SIEM Correlation Engine and its Application to the Olympic Games IT Infrastructure. Valerio Vianello, Vincenzo Gulisano, Ricardo Jimenez-Peris, Marta Patiño-Martínez, Rubén Torres, Rodrigo Díaz, Elsa Prieto 8th International Conference on Availability, Reliability and Security (ARES), 2013.

32. Stone: A Stream-based DDoS Defense Framework. Mar Callau, Vincenzo Gulisano, Zhang Fu, Ricardo Jimenez-Peris, Marina Papatriantafilou, Marta Patiño-Martinez. 28th Annual ACM Symposium on Applied Computing (SAC) 2013.

33. StreamCloud: A Large Scale Data Streaming System. Vincenzo Gulisano, Ricardo Jimenez-Peris, Marta Patiño-Martinez, Patrick Valduriez. 30th International Conference on Distributed Computing Systems (ICDCS) 2010.

Peer-reviewed Journal Publications

34. Benefits of Small-Size Communities for Continuous Cost-Optimization in Peer-to-Peer Energy Sharing. Romaric Duvignau, Verena Heinisch, Lisa Göransson, Vincenzo Gulisano and Marina Papatriantafilou. Elsevier Applied Energy. 2021

35. MAD-C: Multi-stage Approximate Distributed Cluster-combining for obstacle detection and localization. Amir Keramatian, Vincenzo Gulisano, Marina Papatriantafilou and Philippas Tsigas. Elsevier Journal of Parallel and Distributed Computing. 2020

36. DRIVEN: a framework for efficient Data Retrieval and clustering in Vehicular Networks. Bastian Havers, Romaric Duvignau, Hannaneh Najdataei, Vincenzo Gulisano, Marina Papatriantafilou, Ashok Chaitanya Koppisetty. Elsevier Future Generation Computer Systems Journal. 2020.

37. GeneaLog: Fine-Grained Data Streaming Provenance in Cyber-Physical Systems. Dimitris Palyvos Giannas,

Vincenzo Gulisano and Marina Papatriantafilou. 2019 Parallel Computing (Elsevier).

38. BES: Differentially Private Event Aggregation for large-scale IoT-based Systems. Valentin Tudor, Vincenzo Gulisano, Magnus Almgren and Marina Papatriantafilou. Elsevier Future Generation Computer Systems Journal. 2018.

39. Viper: A Module for Communication-Layer Determinism and Scaling in Low-Latency Stream Processing. Ivan Walulya, Dimitris Palyvos-Giannas, Yiannis Nikolakopoulos, Vincenzo Gulisano, Marina Papatriantafilou and Philippas Tsigas. Elsevier Future Generation Computer Systems Journal. 2018.

40. Efficient data streaming multiway aggregation through concurrent algorithmic designs and new abstract data types. Vincenzo Gulisano, Yiannis Nikolakopoulos, Daniel Cederman, Marina Papatriantafilou and Philippas Tsigas. ACM Transactions on Parallel Computing (TOPC) 2017.

41. ScaleJoin: a Deterministic, Disjoint-Parallel and Skew-Resilient Stream Join. Vincenzo Gulisano, Yiannis Nikolakopoulos, Marina Papatriantafilou, Philippas Tsigas. IEEE Transactions on Big Data. 2016.

42. STONE: A Streaming DDoS Defense Framework. Vincenzo Gulisano, Mar Callau-Zori, Zhang Fu, Ricardo Jimémez Pers, Marina Papatriantafilou, Marta Patiño. Expert Systems With Applications. 2015.

43. StreamCloud: An Elastic and Scalable Data Streaming System. Vincenzo Gulisano, Ricardo Jimenez-Peris, Marta Patiño-Martinez, Claudio Soriente, Patrick Valduriez. IEEE Transactions on Parallel and Distributed Processing (TPDS) 2012.

Other Publications

44. Motivations and Challenges for Stream Processing in Edge Computing. Vincenzo Gulisano. Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DaSP 2021, ICPE Workshop). 2021

45. Twins, a Middleware for Adaptive Streaming Provenance at the Edge (poster). Mikael Gordani Shahri, Andréas Erlandsson, Dimitris Palyvos-Giannas, Vincenzo Gulisano. 22nd International Conference on Distributed Computing and Networking (ICDCN). 2021.

46. Tutorial: The Role of Event-Time Order in Data Streaming Analysis. Vincenzo Gulisano, Dimitris Palyvos-Giannas, Bastian Havers, Marina Papatriantafilou. The 14th ACM International Conference on Distributed Event-Based Systems (DEBS) 2020.

47. The DEBS 2020 Grand Challenge. Vincenzo Gulisano, Daniel Jorde, Ruben Mayer, Hannaneh Najdataei, Dimitris Palyvos-Giannas. The 14th ACM International Conference on Distributed Event-Based Systems (DEBS) 2020.

48. Intrusion Detection in Industrial Networks via Data Streaming. Ismail Butun, Magnus Almgren, Vincenzo Gulisano and Marina Papatriantafilou. Chapter in Industrial IoT Challenges, Design Principles, Applications, and Security (Springer) 2020.

49. (Demo) Haren: A Middleware for Ad-Hoc Thread Scheduling Policies in Data Streaming. Dimitris Palyvos Giannas, Vincenzo Gulisano and Marina Papatriantafilou. 2019 ACM/IFIP International Middleware Conference.

50. The DEBS 2019 Grand Challenge. Oleh Bodunov, Vincenzo Gulisano, Hannaneh Najdataei, Zbigniew Jerzak, André Martin, Pavel Smirnov, Martin Strohbach and Holger Ziekow. The 13th ACM International Conference on Distributed Event-Based Systems (DEBS) 2019.

51. (Poster) Mimir – Streaming Operators Classification withArtificial Neural Networks. Victor Gustafsson, Hampus Nilsson, Karl Bäckström, Marina Papatriantafilou, Vincenzo Gulisano. The 13th ACM International Conference on Distributed Event-Based Systems (DEBS) 2019.

52. Elasticity. Vincenzo Gulisano, Alessandro V. Papadopoulos, Marina Papatriantafilou. Chapter of Springer's Encyclopedia of Big Data Technologies. 2019.

53. The DEBS 2018 Grand Challenge. Vincenzo Gulisano, Zbigniew Jerzak, Pavel Smirnov, Martin Strohbach, Holger Ziekow and Dimitris Zissis. The 12th ACM International Conference on Distributed Event-Based Systems (DEBS) 2018.

54. The DEBS 2017 Grand Challenge. Vincenzo Gulisano, Zbigniew Jerzak, Roman Katerinenko, Martin Strohbach and Holger Ziekow. The 11th ACM International Conference on Distributed Event-Based Systems (DEBS) 2017.

55. The DEBS 2016 Grand Challenge. Vincenzo Gulisano, Zbigniew Jerzak, Spyros Voulgaris and Holger Ziekow. The 10th ACM International Conference on Distributed Event-Based Systems (DEBS) 2016.

56. Highly Concurrent Stream Synchronization in Many-core Embedded Systems. Yiannis Nikolakopoulos, Marina Papatriantafilou, Peter Brauer, Martin Lundqvist, Vincenzo Gulisano, Philippas Tsigas. 4th ACM International Workshop on Manycore Embedded Systems – MES 2016.

57. (poster) Understanding the Data-Processing Challenges in Intelligent Vehicular Systems. Stefania Costache, Vincenzo Gulisano, Marina Papatriantafilou. IEEE Intelligent Vehicles Symposium (IV16) 2016.

58. Data-Streaming and Concurrent Data-Object Co-design: Overview and Algorithmic Challenges. Vincenzo Gulisano,

Yiannis Nikolakopoulos, Marina Papatriantafilou, Philippas Tsigas. Book: Algorithms, Probability, Networks, and Games. Springer International Publishing, 2015.

59. ScaleJoin: a Deterministic, Disjoint-Parallel and Skew-Resilient Stream Join. Vincenzo Gulisano, Yiannis Nikolakopoulos, Marina Papatriantafilou and Philippas Tsigas. Eight Swedish Workshop on Multi-Core Computing (MCC) Copenhagen, November 25-26, 2015.

60. DEBS Grand Challenge: Deterministic Real-Time Analytics of Geospatial Data Streams through ScaleGate Objects. Vincenzo Gulisano,Yiannis Nikolakopoulos, Ivan Walulya, Marina Papatriantafilou, Philippas Tsigas. The 9th ACM International Conference on Distributed Event-Based Systems (DEBS) 2015.

61. When Smart Cities meet Big Data. Vincenzo Gulisano, Magnus Almgren, Marina Papatriantafilou. ERCIM News No. 98 – Special theme: Smart Cities.

62. (poster) METIS: a Two-Tier Intrusion Detection System for Advanced Metering Infrastructures. Vincenzo Gulisano, Magnus Almgren, Marina Papatriantafilou. The fifth International Conference on Future Energy Systems (ACM e-Energy) 2014.

63. Algorithms and Data Handling Towards Adaptive and Robust Electricity Networks. Magnus Almgren, Daniel Cederman, Zhang Fu, Vincenzo Gulisano, Olaf Landsiedel, Marina Papatriantafilou. Chalmers Energy Conference 2013.

64. Cybersecurity in the Smart Grid. Magnus Almgren, Zhang Fu, Vincenzo Gulisano, Marina Papatriantafilou, Valentin Tudor. Chalmers Energy Conference 2013.

65. StreamCloud: An Elastic Parallel-Distributed Stream Processing Engine. Vincenzo Gulisano. Ph.D. Thesis.

66. A Big Data Platform for Large Scale Event Processing. Vincenzo Gulisano, Ricardo Jimenez-Peris, Marta Patiño-Martinez, Claudio Soriente, Patrick Valduriez. ERCIM News 2012 (89).

67. Complex Event Processing Based SIEM. Vincenzo Gulisano, Ricardo Jimenez-Peris, Marta Patiño-Martinez, Claudio Soriente, Valerio Vianello. Book: Advances in Security Information Management: Perceptions and Outcomes. 2011.

68. A New Class of Services for Cloud Computing: Real-Time Services over Massive and Continuous Data Flows. Ricardo Jimenez-Peris, Marta Patiño-Martinez, Vincenzo Gulisano. Cloud Futures 2010 Workshop. Microsoft Research Redmond WA USA. 2010.