

Curriculum redatto ai fini della pubblicazione

# Giuseppe Antonio Di Luna

Curriculum Vitae

Data: 17/01/2020

## Part I - General Information

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**Full name:** Giuseppe Antonio Di Luna    **Spoken Languages**    Italiano, Inglese

## Part II - Education

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Type	Years	Institution	Notes
Ph.D.	2011-15	<i>Sapienza</i> , Università di Roma	<b>Thesis Title:</b> On deterministic counting in anonymous dynamic networks <b>Vote:</b> Outstanding. <b>Advisor:</b> Roberto Baldoni
Master Degree	2009-11	<i>Sapienza</i> , Università di Roma	Laurea magistrale in ingegneria informatica. <b>Thesis Title:</b> A collaborative processing system for cyber attacks detection and crime monitoring. <b>Advisor:</b> Roberto Baldoni. <b>Vote:</b> 110 e Lode
Bachelor Degree	2006-09	<i>Sapienza</i> , Università di Roma	Laurea di primo livello in ingegneria informatica. <b>Vote:</b> 110 e Lode

## Part III - Academic Appointments and other

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Start	End	Institution	Position
01/08/2019	Current	<i>Sapienza</i> , Università di Roma, Roma, Italia	<u>Assegnista di ricerca.</u>
01/12/2017	30/09/2018	Aix-Marseille University, CNRS - Laboratoire d'Informatique et Systèmes, Marseille, France	<u>Postdoctoral research fellow</u> <i>Founding:</i> Scholarship Laboratoire d'Excellence Archimède.
17/01/2017	30/11/2017	University of Ottawa, Ottawa, Ontario, Canada	<u>Postdoctoral research fellow</u> <i>Advisors:</i> Paola Flocchini, Nicola Santoro.
01/02/2016	31/12/2016	University of Ottawa, Ottawa, Ontario, Canada	<u>Postdoctoral research fellow</u> <i>Advisors:</i> Paola Flocchini, Nicola Santoro.
12/2014	11/2015	<i>Sapienza</i> , Università di Roma, Roma, Italia	<u>Assegnista di ricerca.</u>

Start	End	Institution
01/2019	05/2019	Presidenza del Consiglio dei Ministri

## Part IV - Teaching experience

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**2019-20** - Lecturer for *Distributed Systems*. Fall 2019- in the Master Degree in Cybersecurity (Docente a contratto, corso Distributed Systems (6 cfu) cod. 1022807 - ING-INF/05, Laurea Magistrale in Cybersecurity), "Sapienza" Università di Roma.

**2015** - Corso Alta Formazione Cyber Threat, Modulo Tecnici-Analisti presso la Presidenza del Consiglio dei Ministri: Lecturer for one module.

**2012-13** - Seminars in Distributed Systems Seminars - in the Master Degree Course of “Sapienza” Università di Roma.

## Part V -Grants

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**2019.** AXA Fellowship winner for a project grant of 125.000€ as principal investigator. Project title: Securing smart devices using smarter binary analysis. Project period 2020-2021. Funding Organisation: AXA Research Fund. Description: Axa Fellowship are competitive open call for projects of young researchers (< 5yr from PhD). The selection process is based on two phases: the first phase is an open project call at university level. In the second phase each university proposes a unique project in an international competition. Projects are evaluated by two anonymous referees, and, after a rebuttal phase, the best projects are selected by the AXA Research Fund Committee. Number of proposals submitted in 2019: 95, Number of accepted projects: 10 (data obtained by private communication with AXA).

## Part VI- Awards

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**2019** - Best Paper Award runner-up in DIMVA2019 for the paper: “SAFE: Self-Attentive Function Embeddings for Binary Similarity”.

**2016** - Travel grant award of the conference ICDCS 2016, IEEE Computer Society.

**2011** - Laureato eccellente, corso di Laurea Magistrale in Ingegneria Informatica, *Sapienza*, Università di Roma, Roma, Italia.

**2011** - Percorso d’eccellenza, corso di Laurea Magistrale in Ingegneria informatica, *Sapienza*, Università di Roma, Roma, Italia.

**2010** - EMC Computer System Scholarship, corso di Laurea Magistrale in Ingegneria informatica, *Sapienza*, Università di Roma, Roma, Italia.

**2008** - Percorso d’eccellenza, corso di Laurea Triennale in Ingegneria informatica, *Sapienza*, Università di Roma, Roma, Italia.

## Part VII- Research Activities

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Keywords	Brief Description
Computer Security	-Collaborative security for detection of cyber-attacks. -Deep neural networks for automated analysis of binaries.
Dynamic Networks	-Design of distributed algorithms for counting in anonymous dynamic networks. -Fault-tolerance in population protocols.
Mobile Distributed Computing	-Understanding the computational power of a set of silent and anonymous mobile entities. -Exploration and gathering for anonymous agents in dynamic networks. -Design of distributed algorithms for programmable matters.
Secure Distributed Computing	-Comparable Agreement under Byzantine Failures (Lattice Agreement).

## Part VIII - Summary of Scientific Achievements

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### VIII.A - Number of publications by type

Product type	Scopus	Google Scholar	Start Year	End Year
Journal	8	8	2014	2020
Conferences	27	29	2011	2020
Book chapters	3	6	2011	2020

## VIII.B - Bibliometrics

Metric	Scopus	Google Scholar	Start Year	End Year
H-index	10	12	2011	2018
Normalized H-index (H-index divided by academic seniority)	1,25	1,43	2011	2020
Total citations	211	377	2011	2020
Mean citations per article	5,85	10,05	2011	2020
Impact Factor <sup>1</sup>	3.712	–	2011	2020
Mean Impact Factor per journal article	1.237	–	2011	2020

## Part IX- Selected publications

1. Giuseppe Antonio Di Luna, Paola Flocchini, Taisuke Izumi, Tomoko Izumi, Nicola Santoro, Giovanni Viglietta. “Population protocols with faulty interactions: The Impact of a leader”. In *Theoretical Computer Science*, Elsevier. doi: 10.1016/j.tcs.2018.09.005, 754:35-49, 2019.

**Bibliometrics** -Number of Citations Scopus: 0, Number of Citations Scholar: 7, JCR Impact Factor: 0,718. (For paper published in 2019 the only JCR available is the 2018, that is the one reported).

2. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Masafumi Yamashita. “Meeting in a polygon by anonymous oblivious robots”. In *Distributed Computing*, doi: 10.1007/s00446-019-00362-2, 2019.

**Bibliometrics** -Number of Citations Scopus: 0, Number of Citations Scholar: 0, Total Field Weighted Citation Impact Scopus: 0 JCR Impact Factor: 1,326. (For paper published in 2019 the only JCR available is the 2018, that is the one reported).

3. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Yukiko Yamauchi. “Shape formation by programmable particles”. In *Distributed Computing*, Springer, doi: 10.1007/s00446-019-00350-6. 2019.

**Bibliometrics** - Number of Citations Scopus: 2, Number of Citations Scholar: 15, JCR Impact Factor: 1,326 (For paper published in 2019 the only JCR available is the 2018, that is the one reported).

4. Giuseppe Antonio Di Luna, Stefan Dobrev, Paola Flocchini, Nicola Santoro. “Distributed exploration of dynamic rings”. In *Distributed Computing*, Springer, doi: 10.1007/s00446-018-0339-1, 2018.

**Bibliometrics** - Number of Citations Scopus: 2, Number of Citations Scholar: 3, JCR Impact Factor: 1,326

5. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Linda Pagli, Giuseppe Prencipe, Giovanni Viglietta. “Gathering on dynamic rings”. In *Theoretical Computer Science*, Elsevier, doi: 10.1016/j.tcs.2018.09.005, 754:35-49, 2018.

**Bibliometrics** - Number of Citations Scopus: 1, Number of Citations Scholar: 0, JCR Impact Factor: 0.718

6. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta. “TuringMobile: A turing machine of oblivious mobile robots with limited visibility and its applications”. In *Proceedings of the 32nd International Symposium on Distributed Computing, (DISC 2018)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, 2018. **Invited to “special issue on Distributed Computing”.**

**Bibliometrics** - Number of Citations Scopus: 2, Number of Citations Scholar: 8.

<sup>1</sup>Computed as sum of the published journal article. The IF has been taken on JCR, for papers published in 2019 the IF of 2018 has been used.

7. Giuseppe Antonio Di Luna, Paola Flocchini, Sruti Gan Chaudhuri, Federico Poloni, Nicola Santoro, Giovanni Viglietta. “Mutual visibility by luminous robots without collisions”. In *Information and Computation*, Elsevier, 254:392-418, 2017.

**Bibliometrics** - Number of Citations Scopus: 24, Number of Citations Scholar: 37, JCR Impact Factor: 1.07.

8. Giuseppe Antonio Di Luna, Paola Flocchini, Taisuke Izumi, Tomoko Izumi, Nicola Santoro, and Giovanni Viglietta. “On the power of weaker pairwise interaction: Fault-tolerant simulation of population protocols”. In *Proceedings of 37th IEEE International Conference on Distributed Computing Systems, (ICDCS 2017)*, IEEE, pp. 2472-2477, 2017.

**Bibliometrics** - Number of Citations Scopus: 0, Number of Citations Scholar: 1.

9. Giuseppe Antonio Di Luna, Stefan Dobrev, Paola Flocchini, Nicola Santoro. “Live exploration of dynamic rings”. In *Proceedings of the IEEE 36th International Conference on Distributed Computing Systems, (ICDCS 2016)*, IEEE, pp. 570-579, 2016.

**Bibliometrics** - Number of Citations Scopus: 14, Number of Citations Scholar: 20.

10. Giuseppe Ateniese, Roberto Baldoni, Silvia Bonomi, Giuseppe Antonio Di Luna. “Fault-Tolerant oblivious assignment with m slots in synchronous systems”. In *Journal of Parallel and Distributed Computing*, Elsevier, 74(7): 2648-2661, 2014.

**Bibliometrics** - Number of Citations Scopus: 0, Number of Citations Scholar: 0, JCR Impact Factor: 1.179.

11. Giorgia Lodi, Leonardo Aniello, Giuseppe Antonio Di Luna, Roberto Baldoni. “An event-based platform for collaborative threats detection and monitoring”. In *Information Systems*, Elsevier, 39:175-195, 2014.

**Bibliometrics** - Number of Citations Scopus: 19, Number of Citations Scholar: 38, JCR Impact Factor: 1.456.

12. Giuseppe Antonio Di Luna, Roberto Baldoni, Silvia Bonomi, Ioannis Chatzigiannakis. “Counting in anonymous dynamic networks under worst-case adversary”. In *Proceedings of the IEEE 34th International Conference on Distributed Computing Systems, (ICDCS 2014)*, IEEE, pp. 338-347, 2014.

**Bibliometrics** - Number of Citations Scopus: 15, Number of Citations Scholar: 22.

## Part X- Other Activites

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### Involvement in research projects

**2018** - Filierasicura, *Industrial project financed by CISCO*.

Role: Research.

Supervisor: Leonardo Querzoni.

**2013-16** - Programmi di Ricerca Scientifica di Rilevante Interesse Nazionale, *TENACE: Protezione delle infrastrutture critiche nazionali da minacce cibernetiche*.

Role: Research and development.

Coordinator: Roberto Baldoni.

**2015** - Progetto Ateneo, *Ensuring continuity of replicated software services under cyber attacks*.

Role: Research and development.

Coordinator: Roberto Baldoni.

**2011** - European Project, *Comifin-ICA*.

Role: Research and development.

### Invited Speaker

- 2019** - “The binary similarity problem and its security implication”. In *Summer School on Hot Topics in Cyber Security*. Sapienza, Università di Roma. DIAG. Roma, Italia.
- 2017** - “Exploration and gathering on dynamic rings”. In *bigMAC: Moving and Computing, 7th Research Meeting on Distributed Computing by Mobile Robots*. La Madalena, Italia.
- 2016** - “Live exploration of dynamic rings by mobile agents”. In *MAC: Moving and Computing, 6th Research Meeting on Distributed Computing by Mobile Robots (colocated con DISC 2016)*. Paris, France.
- 2016** - “Counting on anonymous dynamic networks: Bounds and algorithms”. In *DGDC : Workshop on Dynamic Graph in Distributed Computing (colocated con DISC 2016)*. Paris, France.

### Conference presentations

- 2019** - “Oblivious permutations on the plane”. OPODIS, Neuchâtel, Switzerland.
- 2017** - “Population protocols with faulty interactions: The impact of a leader”. CIAC, Athen, Grece.
- 2016** - “Live exploration of dynamic rings”. ICDCS, Nara, Japan.
- 2015** - “Brief announcement: Investigating the cost of anonymity on dynamic networks”. PODC, San Sebastian, Spain.
- 2014** - “Conscious and unconscious counting on anonymous dynamic networks”. ICDCN, Coimbatore, India.
- 2014** - “Robots with lights: Overcoming obstructed visibility without colliding”. SSS, Paderborn, Germany.
- 2013** - “Counting in anonymous dynamic networks: An experimental perspective”. Algosensors, Sophia-Antipolis, France.
- 2013** - “Counting the number of homonyms in dynamic networks”. SSS, Osaka, Japan.
- 2013** - “Collaborative detection of coordinated port scans”. ICDCN, Mumbai, India.
- 2012** - “Oblivious assignment with  $m$  slots”. SSS, Toronto, Ontario, Canada.

### Seminars

- 2018** - “Population protocols with faulty communications”. In *DALGO Séminaire*. Aix-Marseille University. Laboratoire d’Informatique Fondamentale de Marseille. Marseille, France.
- 2017** - “Counting in anonymous dynamic networks”. In *DALGO Séminaire*. Aix-Marseille University. Laboratoire d’Informatique Fondamentale de Marseille. Marseille, France.

### Research Visits: as invited research or visiting student

- 2020** - Research collaboration. Host: Paola Flocchini, University of Ottawa. Ottawa, Ontario, Canada. January/February.
- 2018** - Research collaboration. Host: Leonardo Querzoni, Università di Roma “Sapienza”. Roma, Italia. June.
- 2018** - Research collaboration. Host: Leszek Antoni Gasieniec, University of Liverpool. Liverpool, UK. May.
- 2018** - Research collaboration. Host: Giuseppe Prencipe, Università di Pisa. Pisa, Italia. May.
- 2018** - Research collaboration. Host: Peter Widmayer and Giovanni Viglietta, ETH Zürich. Zurich, Switzerland. February.
- 2016** - Research collaboration. Host: Giuseppe Prencipe, Università di Pisa. Pisa, Italia. November.
- 2014** - Visiting Ph.D. Student. Hosted by Paola Flocchini and Nicola Santoro, University of Ottawa. Ottawa, Canada. 5 months.

### Student mentoring

- 2019** Tutoring thesis of Laurea Magistrale, Ingegneria Informatica, University of Rome “Sapienza”.  
Fiorella Artuso. Thesis: “Investigating automatic function naming through binary code analysis”.
- 2017-** Tutoring, Master of Science students, University of Ottawa:  
Haochuan Ran. Project title: “Design and implementation of a simulator for mobile agents. part I”.

Jiaqi Xu. Project title: “Design and implementation of a simulator for mobile agents. part II”.

**2012-2014** Tutoring, thesis of Laurea Magistrale, Ingegneria Informatica, University of Rome “Sapienza”.

Davide Italiano. Thesis: “Redesigning time infrastructure in modern Unix Kernels”.

Francesco Frontali. Thesis: “Inferring topologies of distributed pub/sub systems through broker saturation”.

## Community Service

### *Journal Editor*

**2020** - Guest Managing Editor for the Special Issue on “*Algorithmic Theory of Dynamic Networks and its Applications*”, in the *Journal of Computer and System Sciences (JCSS)*, Guest Editors: Silvia Bonomi, Giuseppe Antonio Di Luna, Othon Michail, Leonardo Querzoni.

### *Committees*

**2020** - Program Committee member of the *10th International Conference on Fun with Algorithms (FUN 2020)*, Favignana, Italy.

**2020** - Program Committee member of the “*Computer Science Committee*”, in the *2nd International Conference on Blockchain Economics, Security and Protocols, (TOKENOMICS-2020)*, Toulouse School of Economics, Toulouse, France.

**2018** - Program Committee member of the “*Distributed Computing Track*”, in the *20th International Conference on Distributed Computing and Networking, (ICDCN-2019)*, Indian Institute of Science, Bangalore, India.

### *Reviewer*

Journals: Theoretical Computer Science, Algorithmica, Distributed Computing.

Conference: ACM-SIAM Symposium on Discrete Algorithms (SODA), ACM Symposium on Principles of Distributed Computing (PODC), IEEE International Parallel & Distributed Processing Symposium (IPDPS), International Colloquium on Structural Information and Communication Complexity (SIROCCO), International Conference on Computer Safety, Security and Reliability (Safecomp), International Conference on Distributed Computing and Networking (ICDCN), International Conference on Fun with Algorithms (FUN), International Conference on ICT Systems Security and Privacy Protection (IFIPSEC), International Conference on Principles of Distributed Systems (OPODIS), International Symposium on Computational Geometry (SoCG), International Symposium on Distributed Computing (DISC), International Symposium on Stabilization, Safety, and Security of Distributed Systems (SSS).

## Opensource projects

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**SAFE**: a python project for embeddings of binary functions. <https://github.com/gadiluna/SAFE>. Started in 2018.

**YaraSAFE**: SAFE embeddings for yara (presented at blackhat-arsenal 2019). <https://github.com/lucamassarelli/yarasafe>. Started in 2019.

## Part XI- Complete list of publications

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### *Journals*

- J8. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Masafumi Yamashita. “Meeting in a polygon by anonymous oblivious robots”. In *Distributed Computing*, 2019.

- J7. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Yukiko Yamauchi. “Shape formation by programmable particles”. In *Distributed Computing*, Springer, doi: 10.1007/s00446-019-00350-6. 2019.
- J6. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Linda Pagli, Giuseppe Prencipe, Giovanni Viglietta. “Gathering on dynamic rings”. In *Theoretical Computer Science*, Elsevier, 2018.
- J5. Giuseppe Antonio Di Luna, Paola Flocchini, Taisuke Izumi, Tomoko Izumi, Nicola Santoro, Giovanni Viglietta. “Population protocols with faulty interactions: The Impact of a leader”. In *Theoretical Computer Science*, Elsevier. 2018.
- J4. Giuseppe Antonio Di Luna, Stefan Dobrev, Paola Flocchini, Nicola Santoro. “Distributed exploration of dynamic rings”. In *Distributed Computing*, Springer, doi: 10.1007/s00446-018-0339-1. 2018.
- J3. Giuseppe Antonio Di Luna, Paola Flocchini, Sruti Gan Chaudhuri, Federico Poloni, Nicola Santoro, Giovanni Viglietta. “Mutual visibility by luminous robots without collisions”. In *Information and Computation*, Elsevier, 254:392-418, 2017.
- J2. Giorgia Lodi, Leonardo Aniello, Giuseppe Antonio Di Luna, Roberto Baldoni. “An event-based platform for collaborative threats detection and monitoring”. In *Information Systems Journal*, Elsevier, 39:175-195, 2014.
- J1. Giuseppe Ateniese, Roberto Baldoni, Silvia Bonomi, Giuseppe Antonio Di Luna. “Fault-Tolerant oblivious assignment with m slots in synchronous systems”. In *Journal of Parallel and Distributed Computing*, Elsevier, 74(7): 2648-2661, 2014.

#### Conferences and workshops

- C31. Giuseppe Antonio Di Luna, Emmanuelle Anceaume, Leonardo Querzoni. “Byzantine Generalized Lattice Agreement”. In *Proceedings of the 34th IEEE International Parallel & Distributed Processing Symposium (IPDPS 2020)*, (to appear) 2020.
- C30. Shantanu Das, Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Masafumi Yamashita. “Permutations of robots on a plane”. In *Proceedings of the 23rd International Conference on Principles of Distributed Systems, (OPODIS 2019)*, 2019.
- C29. Luca Massarelli, Giuseppe Antonio Di Luna, Fabio Petroni, Leonardo Querzoni, Roberto Baldoni. “SAFE: Self-Attentive Function Embeddings for Binary Similarity”. In *Proceedings of the 16th International Conference on Detection of Intrusions and Malware & Vulnerability Assessment (DIMVA)*, 2019. **Awarded with the Best Paper Award Runner-up.**
- C28. Luca Massarelli, Giuseppe Antonio Di Luna, Fabio Petroni, Leonardo Querzoni, Roberto Baldoni. “Investigating graph embedding neural networks with unsupervised features extraction for binary analysis”. In *Proceedings of the 2nd Workshop on Binary Analysis Research, (BAR 2019) colocated with NDSS 2019*, 2019.
- C27. Shantanu Das, Giuseppe Antonio Di Luna, Linda Pagli, Giuseppe Prencipe. “Compacting and grouping mobile agents on dynamic rings”. In *Proceedings of the 15th Annual Conference on Theory and Applications of Models of Computation, (TAMC 2019)*, (to appear), 2019.
- C26. Shantanu Das, Giuseppe Antonio Di Luna, Lezsek A. Gasieniec. “Patrolling on dynamic ring networks”. In *Proceedings of the 45th International Conference on Current Trends in Theory and Practice of Computer Science, (SOFSEM 2019)*, 2019.
- C25. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta. “TuringMobile: A turing machine of oblivious mobile robots with limited visibility and its applications”. In *Proceedings of the 32nd International Symposium on Distributed Computing, (DISC 2018)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, 2018. **invited to “special issue on Distributed Computing”.**

- C24. Giuseppe Antonio Di Luna, Paola Flocchini, Giuseppe Prencipe, Nicola Santoro, Giovanni Viglietta. “Line-Recovery by programmable particles”. In *Proceedings of the 19th International Conference on Distributed Computing and Networking, (ICDCN 2018)*, pp. 4:1-4:10, Springer LNCS, 2018.
- C23. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Yukiko Yamauchi. “Shape formation by programmable particles”. In *Proceedings of the 21st International Conference on Principles of Distributed Systems, (OPODIS 2017)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, pp 31:1-31:16, 2017.
- C22. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Masafumi Yamashita. “Meeting in a polygon by anonymous oblivious robots”. In *Proceedings of the 31st International Symposium on Distributed Computing, (DISC 2017)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, pp. 14:1-14:15, 2017.
- C21. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta, Yukiko Yamauchi. “Brief Announcement: Shape formation by programmable particles”. In *Proceedings of the 31st International Symposium on Distributed Computing, (DISC 2017)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, pp. 48:1-48:3, 2017.
- C20. Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Linda Pagli, Giuseppe Prencipe, Giovanni Viglietta. “Gathering on dynamic rings”. In *Proceedings of the 24th International Colloquium on Structural Information and Communication Complexity (SIROCCO 2017)*, Springer LNCS, pp. 339-355, 2017. **invited to “special issue on Theoretical Computer Science”.**
- C19. Giuseppe Antonio Di Luna, Paola Flocchini, Taisuke Izumi, Tomoko Izumi, Nicola Santoro, and Giovanni Viglietta. “On the power of weaker pairwise interaction: Fault-tolerant simulation of population protocols”. In *Proceedings of 37th IEEE International Conference on Distributed Computing Systems, (ICDCS 2017)*, IEEE, pp. 2472-2477, 2017.
- C18. Shantanu Das, Giuseppe Antonio Di Luna, Paola Flocchini, Nicola Santoro, Giovanni Viglietta. “Mediated population protocols: Leader election and applications”. In *Proceedings of the 14th Annual Conference on Theory and Applications of Models of Computation (TAMC 2017)*, Springer LNCS, pp. 172-186, 2017.
- C17. Giuseppe Antonio Di Luna, Paola Flocchini, Taisuke Izumi, Tomoko Izumi, Nicola Santoro, Giovanni Viglietta. “Population protocols with faulty interactions: The impact of a leader”. In *Proceedings of the 10th International Conference on Algorithms and Complexity, (CIAC 2017)*, Springer LNCS, pp. 454-466, 2017. **invited to “special issue on Theoretical Computer Science”.**
- C16. Giuseppe Antonio Di Luna, Paola Flocchini, Giuseppe Prencipe, Nicola Santoro, Giovanni Viglietta. “A rupestrian algorithm”. In *Proceedings of the 8th International Conference on Fun with Algorithms, (FUN 2016)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, pp. 14:1-14:20, 2016.
- C15. Giuseppe Antonio Di Luna, Stefan Dobrev, Paola Flocchini, Nicola Santoro. “Live exploration of dynamic rings”. In *Proceedings of the IEEE 36th International Conference on Distributed Computing Systems, (ICDCS 2016)*, IEEE, pp. 570-579, 2016.
- C14. Giuseppe Antonio Di Luna, Roberto Baldoni. “Non trivial computations in anonymous dynamic networks”. In *Proceedings of the 19th International Conference on Principles of Distributed Systems, (OPODIS 2015)*, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, pp. 33:1-33:16, 2015.
- C13. Giuseppe Antonio Di Luna, Roberto Baldoni. “Brief announcement: Investigating the cost of anonymity on dynamic networks”. In *Proceedings of the 2015 ACM Symposium on Principles of Distributed Computing, (PODC 2015)*, ACM, pp. 339-341, 2015.
- C12. Giuseppe Antonio Di Luna, Roberto Baldoni, Silvia Bonomi, Ioannis Chatzigiannakis. “Conscious and unconscious counting on anonymous dynamic networks”. In *Proceedings of the 15th International Conference on Distributed Computing and Networking, (ICDCN 2014)*, Springer LNCS, pp. 257-271, 2014.



- C11. Giuseppe Antonio Di Luna, Roberto Baldoni, Silvia Bonomi, Ioannis Chatzigiannakis. “Counting in anonymous dynamic networks under worst-case adversary”. In *Proceedings of the IEEE 34th International Conference on Distributed Computing Systems, (ICDCS 2014)*, IEEE, pp. 338-347, 2014.
- C10. Leonardo Aniello, Roberto Baldoni, Claudio Ciccotelli, Giuseppe Antonio Di Luna, Francesco Frontali, Leonardo Querzoni. “The overlay scan attack: Inferring topologies of distributed pub/sub systems through broker saturation”. In *Proceedings of the 8th ACM International Conference on Distributed Event-Based Systems, (DEBS 2014)*, ACM, pp. 107-117, 2014.
- C9. Giuseppe Antonio Di Luna, Paola Flocchini, Sruti Gan Chaudhuri, Nicola Santoro, Giovanni Viglietta. “Robots with lights: Overcoming obstructed visibility without colliding”. In *Proceedings of the 16th International Symposium on Stabilization, Safety, and Security of Distributed Systems, (SSS 2014)*, Springer LNCS, pp. 150-164, 2014. **invited to “special issue on Information and Computations.”**
- C8. Giuseppe Antonio Di Luna, Paola Flocchini, Federico Poloni, Nicola Santoro, Giovanni Viglietta. “The mutual visibility problem for oblivious robots”. In *Proceedings of the 26th Canadian Conference on Computational Geometry, (CCCG 2014)*, 2014.
- C7. Roberto Baldoni, Giuseppe Antonio Di Luna, Leonardo Querzoni. “Collaborative detection of coordinated port scans”. In *Proceedings of the 14th International Conference on Distributed Computing and Networking, (ICDCN 2013)*, Springer LNCS, pp. 102-117, 2013.
- C6. Giuseppe Antonio Di Luna, Silvia Bonomi, Ioannis Chatzigiannakis, Roberto Baldoni. “Counting in anonymous dynamic networks: An experimental perspective”. In *Proceedings of the 9th International Symposium on Algorithms and Experiments for Sensor Systems, Wireless Networks and Distributed Robotics, (Algosensors 2013)*, Springer LNCS, pp. 139-154, 2013.
- C5. Giuseppe Antonio Di Luna, Roberto Baldoni, Silvia Bonomi, Ioannis Chatzigiannakis. “Counting the number of homonyms in dynamic networks”. In *Proceedings of the 15th International Symposium on Stabilization, Safety, and Security of Distributed Systems, (SSS 2013)*, Springer LNCS, pp. 311-325, 2013.
- C4. Roberto Baldoni, Silvia Bonomi, Giuseppe Antonio Di Luna, Luca Montanari, Mara Sorella. “Understanding (mis)information spreading for improving corporate network trustworthiness”. In *Proceedings of the 14th European Workshop On Dependable Computing, (EWDC 2013)*, pp. 165-172, 2013.
- C3. Giuseppe Ateniese, Roberto Baldoni, Silvia Bonomi, Giuseppe Antonio Di Luna. “Oblivious assignment with  $m$  slots”. In *Proceedings of the 14th International Symposium on Stabilization, Safety, and Security of Distributed Systems, (SSS 2012)*, Springer LNCS, pp. 187-201, 2012.
- C2. Roberto Baldoni, Giuseppe Antonio Di Luna, Donatella Firmani, Giorgia Lodi. “A model for continuous query latencies in data streams”. In *Proceedings of the 1st International Workshop on Algorithms and Models for Distributed Event Processing, (AlMoDEP 2011)*, ACM, pp. 20-26, 2011.
- C1. Leonardo Aniello, Giuseppe Antonio Di Luna, Giorgia Lodi, Roberto Baldoni. “A collaborative event processing system for protection of critical infrastructures from cyber attacks”. In *Proceedings of the 30th International Conference on Computer Safety, Reliability e Security, (Safecom 2011)*, Springer LNCS, pp. 310-323, 2011.

#### Books and chapters

- B6. (Chapter) Giuseppe Antonio Di Luna. “Mobile agents on dynamic graphs”. In *Distributed Computing by Mobile Entities*, Springer-Verlag Berlin and Heidelberg GmbH & Co., editors: Paola Flocchini, Giuseppe Prencipe and Nicola Santoro, ISBN 978-3-030-11071-0, 2019.
- B5. (Chapter) Giuseppe Antonio Di Luna, Giovanni Viglietta. “Robots with lights”. In *Distributed Computing by Mobile Entities*, Springer-Verlag Berlin and Heidelberg GmbH & Co., editors: Paola Flocchini, Giuseppe Prencipe and Nicola Santoro, ISBN 978-3-030-11071-0, 2019.

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