

CONTACT INFORMATION	Department of Mathematics University of Salerno Giovanni Paolo II, 132 84084 Fisciano (SA), Italy	<i>Email:</i> dambrosio.ciriaco@gmail.com <i>Mobile:</i> (0039) 3920704742 <i>Web:</i> www.dipmat2.unisa.it/people/cdambrosio/
EDUCATION	Doctor of Philosophy (Ph.D.), in Computer Science University of Salerno, Italy Thesis: <i>Coverage in Wireless Sensor Networks: Models and Algorithms</i> Advisors: Prof. Raffaele Cerulli & Dr. Francesco Carrabs Grade: Optimum	22 April 2015
	Laurea Specialistica Degree (M.Sc. equivalent) in Computer Science University of Salerno, Italy Thesis: <i>Un approccio euristico per il problema della massima clique colorata</i> (in Italian) Advisors: Prof. Raffaele Cerulli & Dr. Francesco Carrabs Grade: 110/110 summa cum laude	9 September 2011
ACADEMIC POSITIONS	Postdoctoral Research Project: <i>Modelli Matematici di tipo ILP Interval Linear Programming</i> Department of Mathematics, University of Salerno, Italy Advisor: Prof. Raffaele Cerulli Current REP. 2400 - PROT. N. 217630 2018/2019 REP. N. 2180 - PROT. N. 18028	1 August 2018 - present
	Postdoctoral Research Project: <i>Problemi di Ottimizzazione su Wireless Sensor Network</i> Department of Mathematics, University of Salerno, Italy Advisor: Prof. Raffaele Cerulli 2015/2016 REP. N. 1585 PROT. N. 39838 2016/2017 REP. N. 1876 PROT. N. 55042 2017/2018 REP. N. 1757 PROT. N. 159068	1 July 2015 - 30 June 2018
AREAS OF RESEARCH	<ul style="list-style-type: none"> • Operations Research • Combinatorial Optimization • Heuristics, Meta-Heuristics, Math-Heuristics • Exact Approaches: Column Generation, Branch&Bound, Branch&Cut 	
CURRENT RESEARCH PROJECTS	<ul style="list-style-type: none"> • ILP Mathematical Models (Interval Linear Programming) • Heuristic and Meta-Heuristic Approaches for Influence Propagation on Social Networks • Exact and Heuristic Approaches for Maximizing Lifetime in Wireless Sensor Networks 	

PUBLICATIONS

1. **New Models and Algorithms to solve the Interval Immune Transportation Problem**
CARRABS C., CERULLI R., D'AMBROSIO C., DELLA CROCE F., GENTILI M.
(DRAFT) (2019)
2. **A new and fast genetic approach for the maximum lifetime problem in Wirelss Sensor Networks**
CERULLI R., D'AMBROSIO C., IOSSA A., PALMIERI F.
(DRAFT) (2019)
3. **Optimization of Sensor Battery Charging to Maximize Lifetime in a Wirelss Sensor Network**
CARRABS C., D'AMBROSIO C., RAICONI A.
Submitted [R1] to Optimization Letters, (Special Issue) (2019)
4. **The Optimal Value Range Problem for the Interval (Immune) Transportation Problem**
D'AMBROSIO C., GENTILI M., CERULLI R.
Omega (United Kingdom) DOI: 10.1016/j.omega.2019.04.002, (Journal Paper) (2018)
5. **Heuristics for the Strong Generalized Minimum Label Spanning Tree Problem**
CERRONE C, D'AMBROSIO C., RAICONI A
NETWORKS, Article ID: NET21882, Article DOI: 10.1002/net.21882 (Journal Paper) (2018)
6. **An Efficient and Simple Approach to Solve a Distribution Problem**
CERRONE C, GENTILI M, D'AMBROSIO C., CERULLI R
New Trends in Emerging Complex Real Life Problems. AIRO Springer Series, vol 1. Springer, Cham, DOI: 10.1007/978-3-030-00473-6_17 (Conference Paper)(2018)
7. **Maximizing lifetime for a zone monitoring problem through reduction to target coverage**
CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
New Trends in Emerging Complex Real Life Problems. AIRO Springer Series, vol 1. Springer, Cham, DOI: 10.1007/978-3-030-00473-6_13 (Conference Paper)(2018)
8. **Best and Worst Values of the Optimal Cost of the Interval Transportation Problem**
CERULLI R., D'AMBROSIO C., GENTILI M.
In Springer Proceedings in Mathematics and Statistics, vol 2017. Springer, Cham. DOI: 10.1007/978-3-319-67308-0_37 (Conference Paper)(2017)
9. **Column Generation Embedding Carousel Greedy for the Maximum Network Lifetime Problem with Interference Constraints**
CARRABS F., CERRONE C., D'AMBROSIO C., RAICONI A.
In Springer Proceedings in Mathematics and Statistics, vol 2017. Springer, Cham. DOI: 10.1007/978-3-319-67308-0_16 (Conference Paper)(2017)
10. **Improved Upper and Lower Bounds for the Close Enough Traveling Salesman Problem**
CARRABS F, CERRONE C., CERULLI R., D'AMBROSIO C.
In Green, Pervasive, and Cloud Computing. GPC 2017. Lecture Notes in Computer Science, vol 10232. Springer, Cham. DOI: 10.1007/978-3-319-57186-7_14(Conference Paper)(2017)

11. **Prolonging Lifetime in Wireless Sensor Networks with Interference Constraints**
 CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
 In Green, Pervasive, and Cloud Computing. GPC 2017. Lecture Notes in Computer Science, vol 10232. Springer, Cham. DOI: 10.1007/978-3-319-57186-7_22 (Conference Paper)(2017)
12. **Exact and heuristic approaches for the maximum lifetime problem in sensor networks with coverage and connectivity constraints**
 CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
 RAIRO - OPERATION RESEARCH, DOI: <https://doi.org/10.1051/ro/2017032> (Journal Paper)(2017)
13. **An exact algorithm to extend lifetime through roles allocation in sensor networks with connectivity constraints**
 CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
 OPTIMIZATION LETTERS, Vol. 11, Num. 7, P. 1341-1356, DOI:10.1007/s11590-016-1072-y (Journal Paper) (2016)
14. **Extending Lifetime Through Partial Coverage And Roles Allocation in Connectivity - Constrained Sensor Networks**
 CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
 Paper Accepted to: 8th IFAC Conference on Manufacturing Modelling, Management and Control, (MIM 2016) (Conference Paper)(2016)
15. **A Hybrid Exact Approach for Maximizing Lifetime in Sensor Networks with Complete and Partial Coverage Constraints**
 CARRABS F, CERULLI R, D'AMBROSIO C., RAICONI A.
 JOURNAL OF NETWORKS AND COMPUTER APPLICATIONS, vol. 58; p. 12 - 22, ISSN: 1084-8045, doi: 10.1016/j.jnca.2015.08.018 (Journal Paper)(2015)
16. **Maximizing lifetime in wireless sensor networks with multiple sensor families**
 CARRABS F, CERULLI R, D'AMBROSIO C., GENTILI M, RAICONI A.
 COMPUTERS & OPERATIONS RESEARCH, vol. 60; p. 121-137, ISSN: 0305-0548, doi: 10.1016/j.cor.2015.02.013 (Journal Paper)(2015)
17. **A collaborative decision-support system for secure analysis of cranial disorders**
 CASTIGLIONE A, PIZZOLANTE R, DE SANTIS A , D'AMBROSIO C.
 In: Intelligent Networking and Collaborative Systems (INCoS), 2014 International Conference.
 University of Salerno, Fisciano (SA), Italy, 10 - 12 September 2014, p. 189-196, ISBN/ISSN: 978-147996386-7, doi: 10.1109/INCoS.2014.115 (Conference Paper)(2014)
18. **Fully distributed secure video surveillance via portable device with user awareness**
 CASTIGLIONE A, D'AMBROSIO C, DE SANTIS A, PALMIERI F.
 Book Title: Security Engineering and Intelligence Informatics. Lecture Notes In Compute Science LCNS 8128, p. 414-429,
 ISBN/ISSN:978-364240587-7, doi: 10.1016/j.cor.2015.02.013, Springer, Regensburg, Germany (Conference Paper)(2013)
19. **On secure data management in health-care environment**
 CASTIGLIONE A, D'AMBROSIO C, DE SANTIS A, CASTIGLIONE A, PALMIERI F.
 In: Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS) 2013, Seventh International Conference. Taichung, Taiwan, ROC, 3-5 July

2013, p. 666-671, ISBN/ISSN:978-076954974-3, doi:10.1109/IMIS.2013.120 (Conference Paper) (2013)

SERVICE

- **Scientific Committee Member** Artificial Intelligence & Industrial Applications A2IA2020, Meknes, Marocco.
- **Scientific Committee Member** of ICCL2018 9th International Conference on Computational Logistics, Vietri sul Mare (SA), ITALY.
- **Scientific Committee Member** of SoftComputing Days 4th: a bilateral China-Italy workshop on Soft Computing, 2018, University of Salerno, Fisciano (SA), ITALY.
- **Technical Program Committee Member** of CSS2018, 10th International Symposium on Cyberspace Safety and Security. Amalfi (SA), ITALY.
- **Technical Program Committee Member** of GPC2017, 12th International Conference on Green, Pervasive and Cloud Computing. Cetara (SA), ITALY.

EDITORIAL ACTIVITY

Associate Editor for Soft Computing - A Fusion of Foundations, Methodologies and Applications, Springer, ISSN: 1432-7643, ISSN: 1433-7479, Journal no. 500. June 2018 - Current

REVIEWER ACTIVITY

Refereed Journal and Conferences

- RAIRO-Operations Research, EDP Sciences
- European Journal of Operational Research (EJOR), Elsevier
- Information Science (IS), Elsevier
- SoftComputing (SOCO), Springer
- Networks, Wiley
- Journal of High Speed Networks, IOS Press
- IEEE Access
- International Journal of Electrical and Computer Engineering (IJECE)
- 9th International Conference on Computational Logistics (ICCL 2018)
- 10th International Symposium on Cyberspace Safety and Security (CSS 2018)
- International Conference on Combinatorial Optimization (ISCO2016)

ORGANIZING COMMITTEE MEMBER

- **International School on Mathematics Guido Stampacchia, Workshop Graph Theory, Algorithms and Applications 5th Edition**, July 2020. Erice (TP).
- **I Workshop Unimol-Unisa. Heuristics and Metaheuristics: foundation, methodology and applications**, 19-21 June 2017. Isernia (IS), ITALY.
- **12th International Conference on Green, Pervasive and Cloud Computing**, (GPC2017), 11-14 May 2017. Cetara (SA), ITALY.
- **INTERNATIONAL SCHOOL ON MATHEMATICS "GUIDO STAMPACCHIA" Workshop Graph Theory, Algorithms and Applications 4th Edition**, 5-13 May 2017. Erice (TP), ITALY.
- **4th International Symposium on Combinatorial Optimization**, (ISCO 2016), 16-18 May 2016, Vietri sul Mare (SA), ITALY.

- **Soft Computing Days: a bilateral China-Italy workshop**, 23-25 May 2016, Fisciano (SA), ITALY.
- INSTITUTIONAL SERVICE**
- **Member of Department of Mathematics Council** at University of Salerno, Fisciano (SA), ITALY. September 2015 - Current
- TEACHING ACTIVITY**
- Help Teaching activity** (8 hours) (REP. N. XXX/2019) **Operations Research**, ssd MAT/09. Department of Mathematics, University of Salerno. AY 2018/2019
- Teaching activity** (30 hours) (REP. N. 11297) **Operations Research and Data Bases, (module ssd MAT/09)**. Engineering Department, University of Salerno. AY 2018/2019
- Help Teaching activity** (20 hours) (REP. N. 1407/2019) **Operations Research**, ssd MAT/09. Department of Computer Science, University of Salerno. AY 2018/2019
- Help Teaching activity** (10 hours) (REP. N. 369/2019) **Operations Research**, ssd MAT/09. Department of Mathematics, University of Salerno. AY 2018/2019
- Help Teaching activity** (14 hours) (REP. N. 1271/2018) **Operations Research**. Department of Mathematics, University of Salerno (AY 2017/2018) REP.N.1271/2018 PROT.96188 26/04/2018.
- Teaching and Organization activity** for the teaching project "Laboratorio di Ricerca Operativa" (Piano Lauree Scientifiche (PLS)). Department of Mathematics, University of Salerno (Scientific Director: Prof. Antonio Di Crescenzo) (AY 2016-2017).
- Teaching Assistant and Member of the Exam Commission. Operations Research**. Department of Mathematics, University of Salerno, AYs 2016/2017, 2017/2018, 2018/2019.
- Teaching Assistant and Member of the Exam Commission. Operation Research**. Department of Computer Science, University of Salerno, AYs 2016/2017, 2017/2018, 2018/2019.
- Teaching Assistant and Member of the Exam Commission. Optimization**. Department of Mathematics, University of Salerno, AYs 2016/2017, 2017/2018, 2018/2019.
- Teaching Assistant and Member of the Exam Commission. Optimization**. Department of Computer Science, University of Salerno, AYs 2016/2017, 2017/2018, 2018/2019.
- INVITED TALK**
- Best and Worst Values of the Optimal Cost of the Interval Transportation Problem.*
Soft Computing Days, 4-8 October 2017, Beijing (Pechino), CHINA.
- CONFERENCE PRESENTATIONS**
- ODS2019. International Conference on Optimization and Decision Science. Talk Title: **A Heuristic Approach to Solve the Interval Immune Transportation Problem.** 4-7 September 2019. Genova, ITALY.

- ICCL2018. International Conference on Computational Logistics. Talk Title: **Best and Worst Value of the Optimal Cost of the Transportation Problem with Interval right Hand Sides.**
1-3 October 2018. Vietri sul Mare (SA). ITALY.
- ODS2018. International Conference on Optimization and Decision Science. Talk Title: **On the worst optimal cost of the Interval Transportation Problem.**
10-13 September 2018. Taormina (CA). ITALY.
- EURO/ALIO 2018. International Conference on Applied Combinatorial Optimization. Talk Title: **Transportation Problem with Interval Right Hand Sides: Best and Worst Values of the Optimal Cost.**
25-26 June 2018, Bologna, ITALY.
- Soft Computing Days 4th. Talk Title: **On the Transportation Problem with Interval Right Hand Sides.**
18-20 June 2018, University of Salerno, Fisciano (SA), ITALY.
- ISCO 2018. International Symposium on Combinatorial Optimization. Talk Title: **On the Optimal Cost of the Transportation Problem with Interval Right Hand Sides.**
11-13 April 2018, Marrakesh, MAROCCO.
- ODS 2017. International Conference on Optimization and Decision Science
Talk Title: **Best and Worst Values of the Optimal Cost of the Interval Transportation Problem.**
4-8 September 2017, Hilton Hotel, Sorrento, ITALY.
- I Workshop Unimol-Unisa. Heuristics and Metaheuristics: foundation, methodology and applications Talk Title: **Best and Worst Values of the Optimal Cost of the Interval Transportation Problem.**
19-21 June 2017, University of Molise, Isernia, ITALY.
- GPC2017 12th International Conference on Green, Pervasive and Cloud Computing. Talk Title: **Prolonging Lifetime in Wireless Sensor Networks with Interference Constraints.**
11-14 May 2017, Cetara (SA), ITALY.
- III Workshop Unisa-Unical Talk Title: **Exact and heuristic approaches for the maximum lifetime problem in sensor networks with coverage and connectivity constraints.**
24-25 November 2015, University of Calabria, Arcavacata di Rende (CS), ITALY
- Second Tbilisi-Salerno Workshop on Modeling in Mathematics Talk Title: **A Column Generation Approach for the Maximum Lifetime Wireless Sensor Network Problems (MLP and α -MLP).**
15-19 March 2015, Ivane Javakishvili Tbilisi State University, GEORGIA.
- First Workshop Unisa-Unical Talk Title: **Maximizing the propagation of advertisements in social networks.**
2-5 November 2013, University of Calabria, Arcavacata di Rende (CS), ITALY.
- XXVI EURO-INFORMS, 26th EUROPEAN Conference on Operational Research Talk Title: **Maximizing the propagation of advertisements in social networks.**
1-4 July 2013, University of Rome "SAPIENZA", ITALY.

**SCHOOLS AND
SPECIAL
EVENTS
ATTENDED**

- 68th Course, International School of Mathematics G. Stampacchia on GRAPH THEORY, ALGORITHMS AND APPLICATIONS. 5-13 May 2017, Center of Scientific Culture *Ettore Majorana*, Erice (TP), ITALY
- (INVITED) 21st Combinatorial Optimization Workshop, (AUSSOIS 2017) 9-13 January 2017, CNR, Aussois, FRANCE.
- 62th Course, International School of Mathematics G. Stampacchia on GRAPH THEORY, ALGORITHMS AND APPLICATIONS. 8-16 September 2014, Center of Scientific Culture *Ettore Majorana*, Erice (TP), ITALY.

**RESEARCH
EXPERIENCE**

Visiting, University of Southampton 29 June - 18 July 2018
School of Electronics and Computer Science (ECS)
Cyber Physical Systems(CPS) Research Group
Hosted by Prof. Parlato Gennaro
Southampton, United Kingdom.

Visiting, University of Southampton 2 August - 2 September 2018
School of Electronics and Computer Science (ECS)
Cyber Physical Systems(CPS) Research Group
Hosted by Prof. Parlato Gennaro
Southampton, United Kingdom.

EXPERIENCE

Selected to participate to Ready ON - IT Service Management Project
Directed by Department of Computer Science of the Science Faculty of University of Salerno and IBM, in collaboration with Kenobi, IBM Business Partner.
January-June 2012.

17 September 2019

Ciriaco D'Ambrosio