

CLAUDIO ARBIB

Dipartimento di Ingegneria/Scienze dell'Informazione e Matematica
Università degli Studi di L'Aquila
Via Vetoio 67010, Coppito (AQ)
Tel: +39 0862 433126 Fax: +39 0862 433180
e-mail: claudio.arbib@univaq.it

(Short version – June 3rd, 2022)

General

Born in Rome, 1958.

Present position: full professor of Operations Research since November 2000.

- 1992. Associate professor of Operations Research at the University of L'Aquila
- 1987. PhD in Computer and System Science from the University of Rome "Sapienza",
Research assistant of Operations Research at the University of Rome "Tor Vergata"
- 1984. Research grant within an ESPRIT project on artificial intelligence
- 1983. Post-laurea degree in Automated Control and Computer Systems from the University of Rome "Sapienza", best dissertation award
- 1982. MSc Laurea degree with honors in Electronic Engineering from the University of Rome "Sapienza"

Google Scholar profile: <https://scholar.google.fr/citations?user=OptQ3jwAAAAJ&hl=it>

Teaching

- 2018-today Course of *Decision Models*, co-teacher, University of L'Aquila, Department of Information Engineering/Science and Mathematics, MSc students in Applied Data Science.
- 2012-today Course of *Operations Research and Optimization*, co-teacher, University of L'Aquila, Faculty of Engineering, all Laurea Degrees.
- 2015-today Course of *Optimization Models and Algorithms*, teacher, University of L'Aquila, Department of Information Engineering/Science and Mathematics, MSc students, *MathMods International School*.
- 2017-18 Course of *Mathematics and Statistics*, co-teacher, University of L'Aquila, Department of Biotechnology and Applied Clinical Science, undergraduate students in Biotechnology.
- 2013 Course of *Industrial Applications of Operations Research*, teacher, Bilkent University, Department of Industrial Engineering, undergraduate and MSc students.
- 2013 Course of *Combinatorial Optimization*, teacher, Bilkent University, Department of Industrial Engineering, master in Industrial Engineering and PhD in Information Engineering.
- 2013 Course of *Industrial Applications of Operations Research*, teacher, Bilkent University, Department of Industrial Engineering, undergraduate and graduate students.
- 2013 Course of *Combinatorial Optimization*, teacher, Bilkent University, Department of Industrial Engineering, master in Industrial Engineering and PhD in Information Engineering.
- 2008-2012 Course of *Operations Research*, teacher, University of L'Aquila, Faculty of Engineering, all Laurea Degrees.
- 2005-2012 Course of *Operations Research*, teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computers and in Mathematics.
- 2005-2012 Course *Optimization of Industrial Production and Logistics*, teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computers and in Mathematics.

- 2005 Course of *Integrated Production Systems*, teacher, University of L'Aquila and Micron Technology Italia, II Level Master in Microelectronics.
- 1996-05 Courses of *Operations Research I and II*, teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computers and in Mathematics.
- 2002-03 Courses of *Operations Management*, Post Laurea Degree in Computer Technologies for the New Economy, University of Milano Bicocca.
- 2000-01 Course of *Operations Research*, contract teacher, University of L'Aquila, Faculty of Engineering, Laurea Degree in Mechanical Eng. and in Electronic Eng.
- 1997-01 Courses of *Combinatorial Optimization I and II*, and of *Decision Support Systems* University of L'Aquila, Faculty of Sciences, Laurea Degree in Computers and in Mathematics.
- 1996-01 Coordinator of the curricula on *Decision Models*, University of L'Aquila, Faculty of Science, Laurea Degree in Computers.
- 1998-00 Courses of *Models of Production Systems*, contract teacher, University of Rome 3, Faculty of Engineering, Laurea Degree in Engineering.
- 1997-98 Seminars on *Scheduling Theory*, University of Rome "La Sapienza", Ph.D. in Operations Research.
- 1994-96 Course of *Operations Research*, teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computer Science and in Mathematics.
- 1992-96 Courses of *Optimization: Theory and Methods*, teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computer Science.
- 1992-94 Course of *Operations Research*, contract teacher, University of L'Aquila, Faculty of Sciences, Laurea Degree in Computers and in Mathematics.
- 1992-93 Seminars on *Combinatorial Optimization*, University of Rome "La Sapienza", Ph.D. in Computer Science.
- 1991-92 Course of *Optimization: Theory and Methods*, contract teacher, University of L'Aquila, Faculty of Science, Laurea Degree in Computer Science.
- 1987-91 Courses of *Operations Research*, seminars, University of Rome "Tor Vergata", Faculty of Engineering, Laurea Degree in Engineering.
Courses of *Combinatorial Optimization*, teacher, University of Rome "La Sapienza", Post-laurea Degree in Mathematical Methods for System Analysis and Control.
- 1989-90 Course of *Calculus I*, assistant, University of Rome "Tor Vergata", Faculty of Engineering, Laurea Degree in Engineering.
- 1988 Course of *Economy and Management*, seminars, University of Rome "Tor Vergata", Faculty of Engineering, Laurea Degree in Engineering.

Membership, appointments, participation

- 2019-today President (from November 20th) of the Research Committee at the Department of Information Engineering/Science and Mathematics, University of L'Aquila.
- 2019-today Vice-director (from November 14th) of the Centre for Excellence DEWS, University of L'Aquila (<http://dews.univaq.it/index.php?id=dewshome>).
- 2014-2019 Research dean of the University of L'Aquila by appointment of the Rector.
- 2008-2011 Dean of the Department of Computer Science (Dipartimento di Informatica), University of L'Aquila.
- 2004-2008 Dean of the Laurea Degree in Computer Science (Consiglio di Corso di Laurea in Informatica) at the Faculty of Science, University of L'Aquila.
- 2005-2010 Elected in the 10-members Scientific Committee of the CIRO – Centro Interuniversitario per la Ricerca Operativa (national Inter-university Center for Operational Research).
- 2002-2008 In the board of the AIRO – Optimization and Decision Science (Italian Operational Research Society).
- 1990-2008 In the editorial board of the *International Journal of Flexible Manufacturing Systems*.
- 2006 In the panel of referees for the evaluation of Research Programmes of Prominent National Interest (PRIN).
- 2004 In the board of experts for the evaluation of national research (CIVR).

1993-2002 In the editorial board of *Ricerca Operativa* (journal of the Italian Operational Research Society).

Up to 2015, in the Advisory Board of the Fondazione Università dell'Aquila.

In the Scientific Advisory Board of the CapiTANK Consortium (Innovation Pole in Chemical-Pharma Technologies, POR FESR ABRUZZO 2007 – 2013, www.capitank.it) and of the Interdepartmental Research Center for Seismic Research at the University of L'Aquila (<http://www.univaq.it/section.php?id=1330>).

Projects

Team leader of national/international research projects by Italian National Research Council (CNR) and Italian Ministry of Education and University (MIUR) on telecommunications, transportation, integrated logistics and combinatorial algorithms. In particular:

- Principal investigator of the 2015 PRIN (Major National Research Project) "Scheduling cuts: new optimization models and algorithms for cutting, packing and nesting in manufacturing processes", ERC Sector PE1, contract n. 20153TXRX9.
- Research unit responsible of the EC Cooperative Research Project on Cutting and Packing "Sheet Cutting and prOcess OPTimization" (SCOOP), 6th Framework Programme.
- Research unit responsible of the IST-EC Project "FUncTional UmTs Real Emulator" (FUTURE), 5th Framework Programme.

Research unit responsible in six research projects of major national relevance (PRIN) from 1996 to 2009:

- "Contrattazione delle attività di agenti produttivi autonomi" (negotiation procedures for autonomous agents in industrial production, 1996)
- "Modelli e algoritmi per problemi di scheduling in sistemi produttivi ad agenti autonomi" (models and algorithms for scheduling problems in production systems with autonomous agents, 1997)
- "Decomposizione di problemi di ottimizzazione nei sistemi di produzione a controllo distribuito" (decomposition of optimization problems in production systems with distributed control, 2000)
- "Resource assignment in telecommunication networks" (2003)
- "Collaborative logistics: models and algorithms for optimal vehicle routing and location" (2007)
- "Models for location/distribution/routing problems" (2009)

Other

In 2013, visiting professor at Bilkent University, Department of Industrial Engineering (Ankara, Turkey).

Participation as invited speaker and/or in the organizing/program committee of national and international conferences: Program Chair of *AIRO 2002* (L'Aquila, Italy, September 2002), *AIRO Winter 2005* (Cortina d'Ampezzo, Italy, January 2005), *AIRO Winter 2007* (Cortina d'Ampezzo, Italy, February 2007), 5th ESICUP Meeting (L'Aquila, Italy, April 2008), *AIRO Winter 2009* (Cortina d'Ampezzo, Italy, January 2009).

Recent participations to scientific committees:

- *ODS 2017* (Sorrento, Italy: <http://www.airoconference.it/ods2017/committees>)
- *ILS 2018* (Lyon, France: <https://ils2018.sciencesconf.org/resource/page/id/1>)
- *ESGI* (L'Aquila, Italy: <https://sites.google.com/view/esgi-laquila-2018/committees>)

Referee of international journals, among others: *Annals of Operations Research*, *Computers and Operations Research*, *Discrete Applied Mathematics*, *Discrete Mathematics*, *European J. of Operational Research*, *IEEE Trans. on Robotics and Automation*, *Information Processing Letters*, *Int. J. of Computer-Aided Engineering and Software*, *Int. J. of Flexible Manufacturing*

Systems, Int. J. of Production Research, J. of Scheduling, Networks, Operations Research, Transportation Science.

Referee of academic and industrial research projects upon appointment of public authorities.

Recent awards:

- ICORES 2018 best student paper award, co-authored with F. Marinelli, A. Pizzuti and R. Rosetti.
- ILS 2018 second best student paper award *ex-aequo*, co-authored with M. Tonelli and M.Ç. Pınar.

With the Operations Research team of the University of L'Aquila ranked second for visibility and fourth for yield (resp. first and second in Europe) in the worldwide section of the *Eighth Rothkopf Ranking of Universities' Contributions to the INFORMS Practice Literature*¹.

Erdős number = 3, H-index = 15, 2015 H-index = 9, i10-index = 25.

Selected publications

International Journals

1. C. Arbib, E. Clementini, A. Di Marco, G. Mudassir, E.E. Howard, L. Pasquini, G. Stilo, "Towards effective response to natural disasters: A Data Science approach", *IEEE Access* (2021)
doi: <https://doi.org/10.1109/access.2017>
2. C. Arbib, F. Marinelli, A. Pizzuti, "Number of bins and maximum lateness minimization in two-dimensional bin packing", *European J. of Operational Research* **291** (2021)
doi: <https://doi.org/10.1016/j.ejor.2020.09.023>
3. C. Arbib, M.Ç. Pınar, F. Rossi, A. Tessitore. "Codon optimization by 0-1 linear programming", *Computers and Operations Research* **119** (2020)
doi: <https://doi.org/10.1016/j.cor.2020.104932>
4. C. Arbib, E. De Santis, "Almost always observable hybrid systems", *Nonlinear Analysis: Hybrid Systems* **36** (2020), ISSN 1751-570X
doi: <https://doi.org/10.1016/j.nahs.2019.100838>
5. C. Arbib, M.Ç. Pınar, M. Tonelli, "Competitive location and pricing on a line with metric transportation costs", *European J. of Operational Research* **282**, 1 (2019) 188-200
doi: <https://doi.org/10.1016/j.ejor.2019.08.042>
6. C. Arbib, G. Felici, M. Servilio, "Common operation scheduling with general processing times: a branch-and-cut algorithm to minimize the weighted number of tardy jobs", *Omega International Journal of Management Science* **84** (2019) 18-30
doi: <https://doi.org/10.1016/j.omega.2018.04.002>
7. C. Arbib, O.E. Karasan, M.Ç. Pınar, "On envy-free perfect matching", *Discrete Applied Mathematics* (2018), **261** (2019) 21-27
doi: <https://doi.org/10.1016/j.dam.2018.03.034>
8. C. Arbib, F. Marinelli, "Maximum lateness minimization in one-dimensional bin packing", *Omega International Journal of Management Science* **68** (2017) 76-84
doi: <https://doi.org/10.1016/j.omega.2016.06.003>
9. C. Arbib, M. Servilio, P. Ventura, "An improved integer linear programming formulation for the closest 0-1 string problem", *Computers & Operations Research* **80** (2017) 94-100

¹ Ronald D. Fricker Jr., *Interfaces*, Vol. 39, No. 6. <http://www.lionhrtpub.com/orms/orms-12-09/frjournals.html>

doi: <https://doi.org/10.1016/j.cor.2016.11.019>

10. C. Arbib, F. Marinelli, P. Ventura, "One-dimensional cutting stock with a limited number of open stacks: Bounds and Solutions from a New Integer Linear Programming Model", *Int. Trans. on Operational Research* **23**, 1-2 (2016) 47-63
11. C. Arbib, G. Felici, M. Servilio, "Sorting common operations to minimize the number of tardy jobs", *Networks* **64**, 4 (2014) 306-320
12. C. Arbib, F. Marinelli, "On cutting stock with due dates", *Omega Int. J. of Management Science* **46** (2014) 11-20
13. C. Arbib, C. Archetti, M. Servilio, M.G. Speranza, "The directed profitable location rural postman problem", *European J. of Operational Research* **236**, 3 (2014) 811-819, online (2013) with DOI: 10.1016/j.ejor.2013.07.018
14. C. Arbib, F. Marinelli, F. Pezzella, "An LP-based tabu search for batch scheduling in a cutting process with finite buffers", *Int. J. of Production Economics* **136**, 2 (2012) 287-296
15. C. Arbib, M. Labbé, M. Servilio, "Scheduling two chains of unit jobs on one machine: a polyhedral study", *Networks* **58**, 2 (2011) 103-113
16. A. Aloisio, C. Arbib, F. Marinelli, "Cutting stock with no three parts per pattern: work-in-process and pattern minimization", *Discrete Optimization* **8** (2010) 315-332
17. A. Aloisio, C. Arbib, F. Marinelli, "On LP relaxations for the pattern minimization problem", *Networks* **57**, 3 (2009) 247-253
18. C. Arbib, F. Marinelli, "Exact and asymptotically exact solutions for a class of assortment problems", *INFORMS J. on Computing* **21**, 1 (2009) 13-25
19. C. Arbib, F. Marinelli, "An optimization model for trim loss minimization in an automotive glass plant", *European J. of Operational Research* **183**, 3 (2007) 1421-1432
20. C. Arbib, F. Marinelli, "Integrating process optimization and inventory planning in cutting-stock with skiving option: an optimization model and its application", *European J. of Operational Research* **163**, 3 (2005) 617-630
21. C. Arbib, M. Servilio, S. Smriglio, "A competitive scheduling problem and its relevance in UMTS channel assignment", *Networks* **44**, 2 (2004) 132-141
22. C. Arbib, F. Marinelli, "The lazy cook problem, or scheduling two parallel machines to minimize vehicle utilization", *Int. J. of Flexible Manufacturing Systems* **15**, 4 (2003) 333-354
23. C. Arbib, F. Di Iorio, F. Marinelli, F. Rossi, "Cutting and reuse: an application from automotive component manufacturing", *Operations Research* **50**, 6 (2002) 923-934.
24. C. Arbib, A. Caprara, "On the stability number of the edge intersection of two graphs", *Information Processing Letters* **83** (2002) 173-174
25. C. Arbib, R. Mosca, "On $(P_5, \text{diamond})$ -free graphs", *Discrete Mathematics* **250** (2002) 1-22
26. C. Arbib, M. Flammini, "On the upper chromatic number of (v_3, b_2) -configurations", *Discrete Applied Mathematics* **120** (2002) 3-12
27. C. Arbib, C., A. Da Soghe, G. Iuliano, "Optimizing multi-chamber work cell management: an application to an AMOS wafer fab", *IEEE Trans. on Semiconductor Manufacturing* **14**, 3 (2001) 1-8
28. C. Arbib, F. Rossi, "Optimal resource assignment through negotiation in a multi-agent manufacturing system", *IIE Transactions* **32** (2000) 963-974
29. C. Arbib, F. Rossi, "An optimization problem arising in the design of multiring systems", *European J. of Operational Research* **124**, 1 (2000) 63-76
30. C. Arbib, M. Flammini, E. Nardelli, "How to survive while visiting a graph", *Discrete Applied Mathematics* **99** (2000) 279-293
31. C. Arbib, R. Mosca, "Polynomial algorithms for special cases of the balanced bipartite subgraph problem", *J. of Combinatorial Mathematics and Combinatorial Computing* **30** (1999) 3-22

32. C. Arbib, D. Pacciarelli, S. Smriglio, "A three dimensional matching model for perishable production scheduling", *Discrete Applied Mathematics* **92** (1999) 1-15
33. Agnetis, A., C. Arbib, "Concurrent operations assignment and sequencing for particular assembly problems in flow lines", *Annals of Operations Research* **69** (1997) 1-31
34. Agnetis, A., C. Arbib, M. Lucertini, F. Nicolò, "Task assignment and sub-assembly scheduling in flexible assembly lines", *IEEE Transactions on Robotics and Automation* **11**, 1 (1995), 1-20
35. Arbib, C., M. Lucertini, F. Nicolò, "Workload balancing and part transfer minimization in flexible manufacturing systems", *International Journal of Flexible Manufacturing Systems* **3**, 1 (1991) 5-25
36. Arbib, C., M. Lucertini, F. Nicolò, "Optimization models for flexible manufacturing systems", *Wissenschaftliche Zeitschrift* **12**, 2 (1988) 67-73
37. Arbib, C., G.F. Italiano, A. Panconesi, "Predicting deadlock in store-and-forward networks", *Networks* **20** (1990) 861-881
38. Agnetis, A., C. Arbib, M. Lucertini, F. Nicolò, "Part routing in flexible assembly systems", *IEEE Transactions on Robotics and Automation* **6**, 6 (1990) 697-705
39. Arbib, C., "A polynomial characterization of some graph partitioning problems", *Information Processing Letters* **26** (1987/88) 223-230

Other refereed journals

40. C. Arbib, F. Rossi, "Scheduling and control of material handling in a flexible manufacturing cell", *Ricerca Operativa* **31**, 101-102 (2002) 73-94
41. C. Arbib, G. Ciaschetti, A. Petrucci, "Mold and job scheduling in plastic printing: a column generation approach", *Ricerca Operativa* **31**, 101-102 (2002) 53-72
42. C. Arbib, "A bound on the stability number of graphs with boxicity k (an exercise)", *Ricerca Operativa* **29**, 90 (1999) 55-61

Online Journals

43. C. Arbib, F. Marinelli, P. Ventura, "Cutting stock with bounded open stacks: a new integer programming model", University of L'Aquila, Technical Report TRCS 007/2010, and *Optimization Online*, http://www.optimization-online.org/DB_FILE/2010/07/2671.pdf
44. C. Arbib, F. Marinelli, "A p -median model for assortment and trim loss minimization with an application to the glass industry", *Optimization Online*, http://www.optimization-online.org/DB_HTML/2004/07/905.html

Editorials

45. C. Arbib, G. Felici (eds.), *Recent OR contributions in network problems*, feature issue of *the European J. of Operational Research* **189**, 3 (2008)
46. C. Arbib, F. Rossi, S. Smriglio (eds.), *Combinatorial optimization and applications*, special volume of *Annals of Operations Research* in honour of Mario Lucertini, **150**, 1 (2007)

International conferences – contributions to volumes

47. E. Clementini, A. Di Marco, C. Arbib, L. Pasquini, E.E. Howard, Definition of an enriched GIS network for evacuation planning, in C. Grueau, R. Laurini, L. Ragia: *Proc. of the 7th Int. Conf on Geographical Information Systems theory, application and management – GISTAM* (2021) 241-252
48. C. Arbib, F.K. Ranjbar, S. Smriglio, "A dynamic dial-a-ride model for optimal vehicle routing in a wafer fab", in *Proc. of the 10th Int. Conf. on Operations Research and Enterprise Systems* **1** (2021) 281-286. doi: 10.5220/0010318402810286
49. C. Arbib, M.T. Moghaddam, H. Muccini, "IoT Flows: a network model application to building evacuation", in: M. Dell'Amico, M. Gaudioso, G. Stecca (Eds.), *A View of Operations Research Applications in Italy*, AIRO Springer Series **2** (2019) 115-131, doi: 10.1007/978-3-030-25842-9

50. C. Arbib, D. Arcelli, J. Dugdale, M.T. Moghaddam, H. Muccini, "Real-time emergency response through performant IoT architectures", in Z. Franco, J.J. Gonzàles, J.H. Canòs (eds.): *Proceedings of the 16th ISCRAM Conference – València, Spain (2018)*
51. C. Arbib, P. Davidsson, M.T. Moghaddam, H. Muccini, "An IoT Software Architecture for an Evacuatable Building Architecture", *Proceedings of HICSS 2018 – The Hawaii Int. Conf. on System Sciences*, Honolulu, US (2018)
52. M. Tonelli, C. Arbib, "On metric location and pricing problems", *7th Int. Conference on Information Systems, Logistics and Supply Chain*, Lyon, France (July 8–11, 2018), shortlisted as best student paper
53. C. Arbib, F. Marinelli, A. Pizzuti, R. Rosetti, "A heuristic for a rich and real two-dimensional woodboard cutting problem", *7th Int. Conference on Operations Research and Enterprise System*, ICORES 2018 (Funchal, Madeira – Portugal, January 24-26 2018): http://www.icores.org/Abstracts/2018/ICORES_2018_Abstracts.htm, Best student paper award
54. C. Arbib, P. Avella, M. Boccia, F. Marinelli, S. Mattia, "Optimization models for cut sequencing", in: A. Sforza and C. Sterle (eds.), *Optimization and Decision Science: Methodologies and Applications*, DOI 10.1007/978-3-319-67308-0_45 (2017)
55. C. Arbib, M.Ç. Pınar, M. Tonelli, "A bilevel uncapacitated location/pricing problem with Hotelling access costs in one-dimensional space", *6th Int. Conference on Information Systems, Logistics and Supply Chain*, Bordeaux, France (June 1–4, 2016): http://ils2016conference.com/wp-content/uploads/2015/03/ILS2016_TB01_4.pdf
56. C. Arbib, G. Felici, M. Servilio, P. Ventura, "Optimum solution of the closest string problem via rank distance", in: R. Cerulli, S. Fujishige, A.R. Mahjoub (Eds.), *Combinatorial Optimization, ISCO 2016 Proceedings* (revised selected papers) LNCS 9849, Vietri sul Mare (May 16-18, 2016) 297-307, DOI 10.1007/978-3-319-45587-7
57. C. Arbib, G. Felici, M. Servilio, "Sorting common operations to minimize tardy jobs", *ECCO XXV*, Antalya, Turkey (April 26-28, 2012)
58. C. Arbib, F. Marinelli, C.M. Scoppola, "A lower bound for the cutting stock problem with a limited number of open stacks", *8th Cologne-Twente Workshop on Graph and Combinatorial Optimization*, Paris, France (June 2-4, 2009)
59. A. Aloisio, C. Arbib, F. Marinelli, "On the pattern minimization problem", *Graph and Optimization Meeting 2008*, Saint-Maximin La Sainte Baume, France (August 2008)
60. C. Arbib, M. Flammini, F. Marinelli, "Minimum flow time graph ordering", *Proc. of the WG'02: Graph Theoretic Concepts in Computer Science, Lecture Notes in Computer Science* n. 2880, Springer-Verlag (2003) 23-33
61. C. Arbib, G. Bogo, C. Campa, S. Chini, F. Del Sorbo, L. Dimopoulou, G. Lombardi, S-H. Oh, J.M. Sanchez, M. Servilio: "QoS provision and IP multimedia services in FUTURE - physical demonstrator architecture for experiments", *IST Mobile & Wireless Telecommunications Summit 03*, Aveiro, Portugal (June 2003)
62. M. Albani, C. Arbib, F. Del Sorbo, A. Giralda, G. Leoleis, G. Lombardi, S-H. Oh, J.M. Sanchez, M. Servilio: "Framework of resource management for S-UMTS", *IST Mobile & Wireless Telecommunications Summit 03*, Aveiro, Portugal, (June 2003)
63. M. Albani, C. Arbib, V. Arvia, F. Del Sorbo, A. Giralda, C.F. Grecas, G. Lombardi, S-H. Oh, J.M. Sanchez, D.C. Schultz, M. Servilio, "A QoS concept for packet oriented S-UMTS services", *IST Mobile & Wireless Telecommunications Summit 2002*, Thessaloniki, GR (June 2002)
64. C. Arbib, F. Rinaldi, "The subpartition problem", *ECCO XIII Conference*, Capri, I (May 2000)
65. C. Arbib, G. Ciaschetti, F. Rossi, "Distributing material flows in a manufacturing system with large product mix: two models based on column generation", in: M.G. Speranza, P. Stähly (eds.), *New Trends in Distribution Logistics, Lecture Notes in Economics and Mathematical Systems*, n. 484, Springer-Verlag (1999) 235-249

66. C. Arbib, "A primal-dual property of the upper chromatic number of mixed hypergraphs", *6th Twente Workshop on Graphs and Combinatorial Optimization*, Enschede, NL (May 26-28, 1999).
67. Agnetis, A., C. Arbib, M. Lucertini, "The combinatorial approach to flow management in FMS", in P. Brandimarte, A. Villa (eds.): *Optimization Models and Concepts in Production Management*, Gordon and Breach Science Publishers, Basel (1995)
68. Agnetis, A., C. Arbib, M. Lucertini, "Combinatorial models for manufacturing: optimizing flow management in flexible production systems", in T.A. Ciriani, R.C. Leachman (eds.): *Optimization in Industry*, J. Wiley & Sons (1993)
69. Arbib, C., U. Mocci, C. Scoglio, "Methodological aspects of ring network design", in P. Kall (ed.): *System Modelling and Optimization: Proc. of the 15th IFIP Conference*, Lecture Notes in Control and Information Sciences, 180, Springer-Verlag (1992)
70. Agnetis, A., C. Arbib, M. Lucertini, F. Nicolò, "Task assignment in pipeline assembly systems", *Proc. of the 1992 IEEE Conference on Robotics and Automation*, Nice, France (1993)
71. Arbib, C., "Tool loading problems in FMS and VLSI circuit layout problems", *System Modelling and Optimization*, Springer-Verlag (1992) 865-874
72. Arbib, C., U. Mocci, C. Scoglio, "Optimal multiplexing of packetized traffics with different requirements", *Proc. of the SET/IEEE International Telecommunication Symposium*, Rio de Janeiro, Brasil (1991)
73. Arbib, C., "Two polynomial problems in PLA folding", in R.H. Moehring (ed.): *Proc. of the 16th International Workshop on Graph Theoretic Concepts*, Lecture Notes in Computer Science, n. 484, Springer-Verlag (1990) 119-129
74. Agnetis, A., C. Arbib, K.E. Stecke, "Optimal two-machine scheduling in a flexible flow system", *Proc. of the 2nd International Conference on CIM*, Troy, NY, IEEE Computer Society Press (May 1990) 47-54
75. Arbib, C., L. Perugini, "Optimal part routing in FMS", in M. Pridham e C. O'Brien (eds.): *Production Research: Approaching the 21st Century*, Taylor & Francis (1989) 544-550
76. Arbib, C., M. Lucertini, F. Nicolò, "Optimization models for flexible manufacturing systems", *Operations research models in flexible manufacturing systems*, Springer-Verlag New York (1989) 75-89
77. Arbib, C., G. Cioni, "Meta-reasoning and data structuring for improving PROLOG programming style", in Ph. Jorrand e V. Sgurev (eds.): *Artificial Intelligence II: Methodology, Systems, Applications*, Elsevier Science Publ. B.V. (1987) 55-61
78. Arbib, C., "A polynomial algorithm for partitioning line-graphs", in B. Simeone (ed.): *Lecture Notes in Mathematics*, Springer-Verlag (Berlin 1986) 198-208