



# MARCO CHIARANDINI

CURRICULUM VITÆ as of September 2020

## PERSONAL INFORMATION

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Birth	1975. Udine, Italy.
Nationality	Italian
Civil Status	Single
Work Address	Department of Mathematics and Computer Science (IMADA, Danish acronym) University of Southern Denmark, Odense Campusvej 55, DK-5230 Odense M, Denmark Telephone: +45 6550 4031 Mobile: +45 5115 2231 Email: marco@imada.sdu.dk Web: <a href="http://www.imada.sdu.dk/~marco">http://www.imada.sdu.dk/~marco</a>
Current position	Associate professor in Computer Science
Areas of competence (ACM CCS 2012)	Computing Methodologies • Applied Computing • Operations Research • Scheduling, Timetabling and Routing in the public and private sectors Artificial Intelligence • Search and Experimentation Methodologies Mathematics of Computing • Discrete Mathematics • (Combinatorics • Combinatorial optimization   Graph Theory • Graph Coloring)

## ACADEMIC POSITIONS

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Apr. 2011 - present	Associate Professor (Lektor) Dept. of Mathematics and Computer Science, University of Southern Denmark, Odense, Denmark.
Feb. 2008 - Mar. 2011	Assistant Professor (Adjunkt) Dept. of Mathematics and Computer Science, University of Southern Denmark, Odense, Denmark.
Jul. 2010 - Oct. 2010	Visiting Researcher IRIDIA, Institute of Interdisciplinary Research and Development in Artificial Intelligence, Université Libre de Bruxelles.
Sep. 2005 - Mar. 2008	Post-Doc researcher Dept. of Mathematics and Computer Science, University of Southern Denmark, Odense, Denmark. Supervisor: Prof. Jørgen Bang-Jensen
Dec. 2001 - Aug. 2005	Ph.D. student Intellectics Group, Dept. of Computer Science, Darmstadt University of Technology, Germany. Supervisor: Dr. habil. Thomas Stützle
Sep. 1999 - Mar. 2000	Master student Dept. of Electrical, Management and Mechanical Engineering, University of Udine, Italy. Supervisor: Prof. Andrea Schaerf

## MAIN EDUCATION AND QUALIFICATIONS

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Dec. 2008 - Dec. 2009	Teacher-Training Programme for Assistant Lecturers at the University of Southern Denmark ( <i>Universitetspædagogikum 2009</i> ). Internal advisor: Lene M. Faerholdt (associate professor at SDU); external advisor: Bodil Ravn (senior lecturer at Odense Katedralskole).
Sep. 2001 - Jul. 2005	Ph.D. in Computer Science, Darmstadt University of Technology, Germany. Dissertation title: <i>Stochastic local search methods for highly constrained combinatorial optimization problems</i> . Supervisors: Dr. habil. Thomas Stütze and Prof. Wolfgang Bibel. Grade: Mit Auszeichnung bestanden (doctor title achieved with distinction).
Jan. 2001	Admission to the Italian Engineers Order (Ordine Italiano Ingegneri) University of Udine, Italy.
Sep. 2000 - Aug. 2001	Civil service at the University of Udine, Italy.
Sep. 1994 - Mar. 2000	Master Degree in Electrical, Management and Mechanical Engineering, Università degli Studi di Udine, Italy. Master Thesis: <i>Un sistema per la pianificazione dei turni del personale di un'azienda mediante tecniche di ricerca locale</i> . Supervisors: Prof. A. Schaerf and Dr. F. Tiozzo. Grade: 110/110 cum laude.
Sep. 1989 - Jul. 1994	High school in scientific studies (Maturità Scientifica), Liceo Scientifico N. Copernico, Udine, Italy.

## OTHER EDUCATION

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### Research Schools and Workshops Attended

April 2014	Projektstyring (Project Management), University of Southern Denmark, Denmark (3 ECTS).
August 2012	Data Mining School, Copenhagen, Denmark.
June 2012	Third International Conference on Computational Sustainability (CompSust'12), Copenhagen, Denmark
September 2011	Workshop: New Trends in Mechanism Design, Copenhagen, Denmark.
July 2007	Robust Optimization Summer School. Cortina D'Ampezzo, Dolomites, Italy.
June 2006	Summer School on Game Theory in Computer Science, University of Aarhus, Denmark.
March 2003	First International Summer School on Metaheuristics, Tenerife, Canary Islands.
June 2002	School on Operations Research organized by CIRO, Centro Interuniversitario per la Ricerca Operativa, Siena, Italy.

### Pedagogy Workshops Attended

March 2015	"Questioning - how it can support learning, teaching and assessment," Donna Hurford
June 2013	"Body Language in the Teaching Situation" (Kropssprog i undervisningen), Johan Borghäll
October 2013	"Participatory Approaches: enabling active learning" Donna Hurford
January 2012	"Course for PhD Supervision" Monika Janfelt and Dacapo
May 2010	"Projekt i Undervisning: hvorfor og hvordan?" Birgitte Madelung and Hans-Jørgen Kristensen, SDU

January 2009	“Project supervision and facilitation”, Anette Kolmos, University of Aalborg
August 2008	“The good lecture” (Den gode forelæsning), Birgitta Wallstedt, SDU
June 2007	“Assessment for learning and Teaching to Large Classes”, Sally Brown and Phil Race, University of Leeds
April 2006	“Effective University Teaching”, Richard M. Felder and Rebecca Brent, Carolina University

## TEACHING

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Since 2005, I have taught more than 30 courses in computer science, supervised 18 master theses, 6 bachelor theses and 13 individual study activities. All my teaching activity has taken place at the Department of Mathematics and Computer Science of the University of Southern Denmark. Indicatively, I hold 24 hours lectures and 20 hours exercises for courses of 5 ECTS and 48 hours lectures and 40 hours exercises for courses of 10 ECTS.

### Courses

2010, 2012-present	<i>Linear and Integer Programming</i> (Bachelor level, 10 ECTS. The course has typically around 45 students, except for year 2014-2015 where there were 75.)
2014-present	<i>Heuristics and Constraint Programming for Discrete Optimization</i> (Master level, 10 ECTS. In average 15 students.)
2017	<i>Introduction to Programming in C++</i> (Bachelor level, 5 ECTS. In average 12 students.)
2013	<i>Computer architecture</i> (Bachelor level, 5 ECTS, 45 students)
2010, 2013	<i>Introduction to Machine Learning</i> (Master level, 5 ECTS)
2012, 2014	<i>Computer Game Programming II: AI</i> (Bachelor level, 5 ECTS)
2009, 2011	<i>Introduction to Artificial Intelligence</i> (Bachelor level, 5 ECTS)
2011, 2012, 2014	<i>Modeling and Solving Constrained Optimization Problems</i> (Master level, 5 ECTS)
2006-2011, 2014	<i>Scheduling, Timetabling and Routing</i> (Phd and Master level, 5 ECTS)
2006, 2012, 2013	<i>Heuristics for Combinatorial Optimization</i> (Master level, 5 ECTS)
2008	<i>Metaheuristics</i> (Master level, 5 ECTS)
2005-2006	<i>Local Search Methods: Applications and Engineering</i> (Master level, 10 ECTS)

### Other Teaching Activities

2009-present	Coordination at IMADA for the course <i>First Year Science Project</i> (Bachelor level, 10 ECTS)
2012-2016	Lectures on MATLAB programming in the course <i>Computational Science</i> (Bachelor level, 8 ECTS)
2008-2014	Guest lecture in the course <i>Philosophy of Science – Computer Science</i> (Bachelor level, 5 ECTS)
2013, 2014, 2016	Supervision of one group in <i>First Year Science Project</i>
2009, 2016, 2017	Three lectures and two assignments in <i>Introduction in Computer Science</i> (Bachelor level, 10 ECTS)
2011, 2012	Group supervision to Gymnasimum students, <i>Studieretningsprojekt</i>

## Student Supervision

Since 2007	PhD Students:	2
	Master Students:	20
	Bachelor Students:	10
	Individual Study Activities:	14
PhD Students	Anders Knudsen, 2014-2017, Industrial PhD with Air Support, "Flight Route Optimization".	
	Niels Hvidberg Kjeldsen, 2009–2012, Industrial PhD, "Long Term Planning in the Energy Sector." The industrial partner is DONG. (together with prof. Jørgen Bang-Jensen)	

For Master, Bachelor and Study Activity projects see the full list with titles at <http://www.imada.sdu.dk/~marco/Education/students.html>.

## Service in the Censor bodies of the Danish University Education System

Appointments	Ingeniøruddannelsernes landsdækkende censorkorps, retning Matematik, Fysik og Samfundsfag (periods 2010-2014, 2014-2018)
Experience	Censor 5 times in 2 courses (Rute- og distributionsplanlægning; Programmering og transportoptimering) Censor 10 times in Master projects.

## ACHIEVEMENTS AND FELLOWSHIPS

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13.09.2015	Bibliometric indices:				
	Google scholar		Web of Science		
	Citation indices:	All	Since 2010	Articles:	16
	Citations:	1121	718	Times Cited without self-citations:	168
	h-index:	15	14	h-index:	6
i10-index:	20	18			
2007	Member of the team that ranked third in the Second International Timetabling Competition organized by PATAT, <a href="http://www.idsia.ch/Files/ttcomp2002/">http://www.idsia.ch/Files/ttcomp2002/</a> . (Joint work with H. Hoos and C. Fawcett from the University of British Columbia.)				
2005	Member of the team that ranked third in the final phase of the ROADEF'2005 challenge, <a href="http://www.prism.uvsq.fr/~vdc/ROADEF/CHALLENGES/2005/">http://www.prism.uvsq.fr/~vdc/ROADEF/CHALLENGES/2005/</a> . (Joint work at the Intellectics Group of the Darmstadt University of Technology.)				
2003	Member of the team that ranked first out of 24 in the First International Timetabling Competition organized by the Metaheuristics Network and sponsored by PATAT <a href="http://www.idsia.ch/Files/ttcomp2002/">http://www.idsia.ch/Files/ttcomp2002/</a> . (Joint work with M. Birattari and K. Socha from IRIDIA, Université Libre de Bruxelles and O. Rossi-Doria from the School of Computing, Napier University.)				
Dec. 2001 - Aug. 2004	Member of the Metaheuristics Network, a Research Training Network funded by the Improving Human Potential Programme of the European Community.				

## RESEARCH MANAGEMENT AND FUNDING

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2017-2018	Coordination of the project "Intelligent Traffic Systems" in collaboration with Odense Kommune and financed by University of Southern Denmark Amount: 2 mio Danish Krone.
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2014-2017	Participation as main supervisor in the industrial PhD project “Flight Route Optimization”, financed by the Danish InnovationFonden and Air Support.
2009-2012	Participation as main supervisor in an industrial PhD project “Long Term Planning in the Energy Sector”, financed by the Danish InnovationFonden and DONG energy.
December 2013	Awarded by the Danish e-Infrastructure Cooperation with involvement of the Danish Council of Independent Research Title of the project: “Experimental Assessment of Optimization Algorithms for Graph Coloring and Timetabling” Amount: 45.000 Dkk
March 2012	Access granted to free resources of Danish Center for Scientific Computing Title of the project: “Engineering Optimization Algorithms: Methods and Applications”
June 2010	Awarded by the Danish Council for Independent Research   Natural Sciences (FNU) for a research stay abroad. Title of the project: “Automatic Configuration and Tuning of Optimization Algorithms.” Amount: 120.384 Dkk.
July 2009	Awarded by the Fabrikant Mads Clausens Fond. Title of the the project “Efficient Algorithms for Optimization.” Amount: 30.000 Dkk.
May 2009	Awarded by Lundbeck Fonden for travelling expenses. Title: “Participation to the Second International Workshop of the ERCIM Working Group on Computing & Statistics”. Amount: 8.286 Dkk.
July 2013 - June 2016	Member of a joint research project including four universities (Rammebevilling, DFF – 1323-00178) funded by the Danish Council for Independent Research   Natural Sciences (FNU). Title of the project: “AlgoDisc - Discrete mathematics, algorithms and data structures”. Main investigator: Prof. Carsten Thomassen, Technical University of Denmark. Amount: 6.480.000 Dkk administrated by the Technical University of Denmark.
Jan. 2010 - Dec. 2012	Member of a joint research project including four universities (Stort Forskningsprojekt) funded by the Danish Council for Independent Research   Natural Sciences (FNU). Title of the project: “Research activities in Discrete Mathematics”. Main investigator: Prof. Carsten Thomassen, Technical University of Denmark. Amount: 4.470.129 Dkk administrated by the Technical University of Denmark.

## TALKS AND POSTERS

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Extended abstracts also appear later in the publication list as conference proceedings. Instead, short abstract or posters that were not published in proceedings do not appear in the publication list. Talks at conferences linked to regular papers are not listed here.

June 2015	“Learning Graphical Models for Parameter Tuning”, useR! (Poster)
October 2014	“Handling Preferences in Student Project Allocation” Workshop on Challenges in Algorithmic Social Choice (Short Abstract)
October 2014	”A Web Platform for Problem Solving Competitions.” Assessment, Feedback and Learning Conference (Extended Abstract)

August 2012	“Towards fair and efficient assignments of students to projects”, 9th International Conference on the Practice and Theory of Automated Timetabling (PATAT2012) (Extended abstract)
May 2012	“Planning in education: Some challenging scheduling problems”. EU/MEeting 2012: Metaheuristics for global challenges, Technical University of Denmark (DTU), Copenhagen (Short Abstract)
July 2011	Metaheuristics International Conference, 9th Edition, Udine, Italy (Extended abstract)
May 2011	CPAIOR, eighth International Conference on Integration of Artificial Intelligence (AI) and Operations Research (OR) techniques in Constraint Programming, Berlin, Germany (late breaking abstract)
May 2010	SEA, 9th International Symposium on Experimental Algorithms, Naples, Italy (Regular paper)
Jan. 2010	LION 4, Learning and Intelligent Optimization, Venice, Italy (Short Abstract)
Oct. 2009	Second Workshop of the ERCIM Working Group on Computing & Statistics, Limassol, Cyprus (Short Abstract)
Jul. 2009	EURO XXIII European Conference on Operational Research. Bonn, Germany (Short Abstract)
Oct. 2008	“Experimental Analysis of Optimization Heuristics” at the Workshop on Computational Optimization Methods in Statistics, Econometrics and Finance, Rauischholzhausen, Germany ( <i>Invited tutorial</i> )
Dec. 2007	Graph Theory Meeting, Fredericia, Denmark (Short Abstract)
Dec. 2007	Workshop on Algorithms, Christian-Albrechts-Universität zu Kiel, Germany (Extended abstract)
Sep. 2007	“Empirical methods for the analysis of algorithms” at the Workshop on Engineering Stochastic Local Search Algorithms, Brussels, Belgium ( <i>Invited tutorial</i> )
Sep. 2007	Workshop on Engineering Stochastic Local Search Algorithms, Brussels, Belgium (Regular paper)
Jul. 2007	EURO XXII European Conference on Operational Research. Prague, Czech Republic (Short Abstract)
Sep. 2006	Annual Conference of the Italian Operational Research Society. Edition XXXVII in Cesena, Italy (Short Abstract)
Aug. 2006	Matheuristics 2006, First Workshop on Mathematical Contributions to Metaheuristics, Bertinoro, Italy (Short Abstract)
Dec. 2005	Graph Theory Meeting. Nyborg, Denmark (Short Abstract)
Sep. 2005	Annual Conference of the Italian Operational Research Society. Edition XXXVI in Camerino, Italy (Short Abstract)
Aug. 2005	Metaheuristics International Conference, Sixth Edition, Vienna, Austria (Extended abstract)
Sep. 2002	Computational Symposium on Graph Colouring and its Generalisations held in conjunction with Constraint Programming 2002 at Cornell University, Ithaca, NY, USA (Regular paper)
2002 - 2004	Research presentation within the Metaheuristics Network. The activities comprised a total of 8 Network meetings, including workshops, milestone assessment and visits to industrial partners.

## OTHER CONFERENCES ATTENDED

2015	European Conference for Operational Research (EURO), Glasgow
2012	International Symposium on Mathematical Programming (ISMP), Berlin
2005-2015	International Graph Theory Meetings in Denmark: Nyborg 2005, Fredericia 2007, Sandbjerg 2008, Fredericia 2009, Kolding 2011, Nyborg 2012, Nyborg 2015.



## PROFESSIONAL SERVICE

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Membership of Editorial Boards	<i>Algorithms</i> , Multidisciplinary Digital Publishing Institute, Open Access Publishing <i>Operations Research Perspectives</i> , Springer
Membership of Program Committees in International Conferences	<i>GECCO – Genetic and Evolutionary Computation Conference, Track on Real World Applications or Combinatorial Optimization Problems</i> , 2009-2015. <i>MIC – Metaheuristics International Conference</i> , Udine, 2011, 2013, 2015. <i>HM – Hybrid Metaheuristics</i> , 2007, 2008, 2009, 2010, 2013. <i>ANTS – Ant Colony Optimization and Swarm Intelligence</i> , 2006, 2008, 2010, 2012, 2014. <i>SLS – Engineering Stochastic Local Search Algorithms</i> , 2007, 2009. <i>ICAART – International Conference on Agents and Artificial Intelligence</i> , 2012, 2013, 2015 <i>ACM RACS – Research in Adaptive and Convergent Systems</i> 2013 <i>EMO – International Conference on Evolutionary Multi-Criterion Optimization</i> , 2013 <i>RCRA – Experimental Evaluation of Algorithms for solving problems with combinatorial explosion</i> , 2012
Reviews for International Journals	<i>Computers &amp; Operations Research</i> (Elsevier) <i>Journal of Heuristics</i> (Springer) <i>Swarm Intelligence</i> (Springer) <i>Annals of Operations Research</i> (Springer) <i>Networks</i> (Wiley) <i>Journal on Computing</i> (INFORMS) <i>OMEGA</i> (Elsevier) <i>International Journal of Production Research</i> (Taylor & Francis) <i>Journal of Combinatorial Optimization</i> (Springer) <i>AI Communications</i> (IOS Press) <i>Systems, Man and Cybernetics - Part B</i> , (IEEE Press) <i>IEEE Transactions on Evolutionary Computation</i> (IEEE Press) <i>Computers and Mathematics with Applications</i> (Elsevier) <i>Journal of Artificial Evolution Applications</i> (Hindawi Publishing Corporation) <i>Mathematical Problems in Engineering</i> (Hindawi Publishing Corporation) <i>Advances in the Design of Evolutionary Algorithms</i> (edited book, Springer) <i>International Journal of Computer Mathematics</i> (Taylor & Francis) <i>The R Journal</i> (R project)
Reviews for International Conferences and Workshops	<i>RCRA 2014</i> , RCRA, International Workshop on "Experimental Evaluation of Algorithms for solving problems with combinatorial explosion". <i>SEA 2011</i> , 10th International Symposium on Experimental Algorithms 2011, Kolimpari Chania, Greece <i>CPAIOR 2010</i> , International Conference on Integration of Artificial Intelligence (AI) and Operations Research (OR) techniques in Constraint Programming, Bologna, Italy. <i>SEA 2009</i> , 8th International Symposium on Experimental Algorithms SEA 2009, Dortmund, Germany. <i>WCCI 2008</i> , IEEE World Congress on Computational Intelligence, Hong Kong. <i>WEA 2007</i> , 6th Workshop on Experimental Algorithms, Rome, Italy. <i>GECCO 2007</i> , Genetic and Evolutionary Computation Conference, London, UK. <i>ESA 2006</i> , 14th Annual European Symposium on Algorithms, Zürich, Switzerland. <i>ORP3 2005</i> , A EURO Conference for young OR researchers, Valencia, Spain.

Organization of Scientific Events	<p>Co-organizer of the Workshop on Experimental Methods for the Assessment of Computational Systems, in conjunction with the International Conference on Parallel Problem Solving From Nature (PPSN), Krakow, Poland, 2010.</p> <p>Co-organizer of the Workshop on “Empirical Methods for the Analysis of Algorithms” in conjunction with the International Conference on Parallel Problem Solving From Nature (PPSN IX), Reykjavik, Iceland, 2006.</p>
Evaluation of Research Proposals	<p>Research grant applications,</p> <p>PhD application at the Fonds National de la Recherche, Luxembourg Government</p> <p>Book proposal for Oxford University Press</p> <p>Book proposal for Bentham Science Publishers</p>
Affiliations and Memberships	<p>EU/ME European Chapter on Metaheuristics</p> <p>WATT Working Group on Automated Timetabling</p> <p>Dansk Selskab for Operationsanalyse (DORS)</p> <p>Dansk Universitetspædagogisk Netværk</p>

## COLLABORATIONS WITH INDUSTRY AND PUBLIC SECTOR

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2015-2016	Supervision of a Master project in collaboration with Mobile Industrial Robots: “Dispatching and Routing of Automated Guided Vehicles”
2014-present	Supervision of an industrial PhD project in collaboration with Air Support: “Flight route optimization”
2014	Supervision of a master project in collaboration with DSB-S: “Column generation for periodic train timetabling”
2014	Supervision of a master project in collaboration OE3i: “Optimizing Short Term Power Plant Unit Commitment”
2013	Supervision of a master project in collaboration with Online Telemarketing: “Tools for predicting potential costumers in Telemarketing”
2011-2012	Supervision of a master project in collaboration with APC by Schneider Electric “Optimizing the distribution of virtualization clusters on the physical infrastructure”.
2008-2012	Supervision of a master and industrial PhD student on long term planning in the energy sector. The industrial partner is DONG Energy, Denmark. The collaboration resulted in publication [IJ.7, AB.2].
2010	Supervision of a master student in the development of a software for the timetabling of courses at the Faculty of Science of the University of Southern Denmark.
2006-2007	Participation in a project with Bang and Olufsen for optimizing the movement of cranes in an anodizing plant.
2004	Two week stay at Eurobios, consultancy firm in Paris, France, working at the optimization of train timetable. The collaboration was part of the Metaheuristics Network programme.
2000	Development of a system for an employee timetabling case specified by a consultancy firm, Cybertex, Trieste, Italy. This work became my Master thesis [TH.1] and led to a joint international publication [CP.1].



## SOFTWARE AND DATA MADE AVAILABLE TO THE SCIENTIFIC COMMUNITY

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2011–present	Learning graphical models for parameter tuning. An R package. ( <a href="http://www.imada.sdu.dk/~marco/lgmpt">www.imada.sdu.dk/~marco/lgmpt</a> )
2011–present	Graphical tools for empirical attainment function of random sets. An R Package. In collaboration with C. Fonseca, M. López-Ibáñez, M. Chiarandini, L. Paquete, T. Stützle (to appear <a href="http://cran.r-project.org/">http://cran.r-project.org/</a> )
2010–present	Heuristics and metaheuristics for graph coloring. ( <a href="http://www.imada.sdu.dk/~marco/gcp-study">www.imada.sdu.dk/~marco/gcp-study</a> )
2007–present	Data set for the 2-Edge-Connectivity Augmentation Problem ( <a href="http://www.imada.sdu.dk/~marco/e12aug">www.imada.sdu.dk/~marco/e12aug</a> )

## OTHER ACTIVITIES AND COMPETENCES

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2008 - present	Scheduling of elective courses at the Department of Mathematics and Computer Science. A description of the problem solved by integer programming is available at <a href="http://www.imada.sdu.dk/~marco/Timetables/Documentation/">http://www.imada.sdu.dk/~marco/Timetables/Documentation/</a> .
Languages	Italian (mother language), English (proficient user), Danish (Independent user), German (basic user), French (basic user)
Programming Skills	Programming languages (C, C++) Markup languages (HTML, CSS) Scripting languages (Perl, Python, shell script) Statistical and mathematical software (R) IP and CP modeling (ZIMPL/AMPL, Gecode) Revision control (Subversion, Git) Digital Typesetting ( $\LaTeX$ )

## INTERNATIONAL RELATIONS

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Prof. Andrea Schaerf, University of Udine  
Dr. Stefano Gualandi, Ant Optima  
Dr. Thomas Stützle, Université Libre de Bruxelles  
Ph.D. Napoleao Nepomuceno, Universidade de Fortaleza, Fortaleza, Brasil

The publications are presented in reversed chronological order and are grouped by publication type. All publications, except those in the section Technical Reports, have been peer-reviewed. A publication list with links to electronic versions of the articles is available online at <http://www.imada.sdu.dk/~marco/pub>.

### International Journals:

- IJ.10 M. Chiarandini, R. Fagerberg, S. Gualandi (2019). Handling preferences in student-project allocation. *Annals OR*, vol. 275, no. 1, pp. 39–78.
- IJ.9 M. Chiarandini, N. H. Kjeldsen, N. Nepomuceno (2014). Integrated planning of biomass inventory and energy production. *IEEE Transactions on Computers*, vol. 63, no. 1, pp. 102–114.
- IJ.8 M. Chiarandini, L. Di Gaspero, S. Gualandi, A. Schaerf (2012). The balanced academic curriculum problem revisited. *Journal of Heuristics*, vol. 18, no. 1, pp. 119–148.
- IJ.7 N. H. Kjeldsen, M. Chiarandini (2012). Heuristic solutions to the long-term unit commitment problem with cogeneration plants. *Computers & Operations Research*, vol. 39, no. 2, pp. 269–282.
- IJ.6 J. Bang-Jensen, M. Chiarandini, P. Morling (2010). A computational investigation of heuristic algorithms for 2-edge-connectivity augmentation. *Networks*, vol. 55, no. 4, pp. 299 – 325. Supplementary material available at <http://www.imada.sdu.dk/~marco/e12aug/>. Preliminary version available as *Tech. Rep.* DMF-2007-07-005 at The Danish Mathematical Society.
- IJ.5 M. Chiarandini, I. S. Kotsireas, C. Koukouvinos, L. Paquete (2008). Heuristic algorithms for Hadamard matrices with two circulant cores. *Theoretical Computer Science*, vol. 407, pp. 274–277. Code <http://www.imada.sdu.dk/~marco/Hadamards/ts.c>.
- IJ.4 D. Basso, M. Chiarandini, L. Salmaso (2007). Synchronized permutation tests in IxJ designs. *Journal of Statistical Planning and Inference*, vol. 137, no. 8, pp. 2564–2578.
- IJ.3 M. Chiarandini, T. Stütze (2007). Stochastic local search algorithms for graph set T-colouring and frequency assignment. *Constraints*, vol. 12, no. 3, pp. 371–403.
- IJ.2 L. Bianchi, M. Birattari, M. Chiarandini, M. Manfrin, M. Mastrolilli, L. Paquete, O. Rossi-Doria, T. Schiavinotto (2006). Hybrid metaheuristics for the vehicle routing problem with stochastic demand. *Journal of Mathematical Modelling and Algorithms*, vol. 5, no. 1, pp. 91–110.
- IJ.1 M. Chiarandini, M. Birattari, K. Socha, O. Rossi-Doria (2006). An effective hybrid algorithm for university course timetabling. *Journal of Scheduling*, vol. 9, no. 5, pp. 403–432.

### Conference Proceedings:

- CP.21 Y. Djenouri, A. Zimek, M. Chiarandini (2018). Outlier detection in urban traffic flow distributions. In *IEEE International Conference on Data Mining, ICDM 2018, Singapore, November 17-20, 2018*, pp. 935–940, IEEE Computer Society.
- CP.20 A. N. Knudsen, M. Chiarandini, K. S. Larsen (2018). Heuristic variants of A\* search for 3D flight planning. In W. J. van Hoeve (Ed.), *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, vol. 10848 of *Lecture Notes in Computer Science*, pp. 361–376, Springer.

- CP.19 C. K. Jensen, M. Chiarandini, K. S. Larsen (2017). Flight Planning in Free Route Airspaces. In G. D'Angelo, T. Dollevoet (Eds.), *17th Workshop on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems (ATMOS 2017)*, vol. 59 of *OpenAccess Series in Informatics (OASICs)*, pp. 1–14, Schloss Dagstuhl–Leibniz-Zentrum fuer Informatik, Dagstuhl, Germany.
- CP.18 A. N. Knudsen, M. Chiarandini, K. S. Larsen (2017). Constraint handling in flight planning. In J. C. Beck (Ed.), *Principles and Practice of Constraint Programming - 23rd International Conference, CP 2017, Melbourne, VIC, Australia, August 28 - September 1, 2017, Proceedings*, vol. 10416 of *Lecture Notes in Computer Science*, pp. 354–369, Springer.
- CP.17 A. Bomersbach, M. Chiarandini, F. Vandin (2016). An efficient branch and cut algorithm to find frequently mutated subnetworks in cancer. In M. C. Frith, C. N. S. Pedersen (Eds.), *Algorithms in Bioinformatics - 16th International Workshop, WABI 2016, Aarhus, Denmark, August 22-24, 2016. Proceedings*, vol. 9838 of *Lecture Notes in Computer Science*, pp. 27–39, Springer.
- CP.16 A. N. Knudsen, M. Chiarandini, K. S. Larsen (2016). Vertical optimization of resource dependent flight paths. In G. A. Kaminka, M. Fox, P. Bouquet, E. Hüllermeier, V. Dignum, F. Dignum, F. van Harmelen (Eds.), *ECAI 2016 - 22nd European Conference on Artificial Intelligence, 29 August-2 September 2016, The Hague, The Netherlands - Including Prestigious Applications of Artificial Intelligence (PAIS 2016)*, vol. 285 of *Frontiers in Artificial Intelligence and Applications*, pp. 639–645, IOS Press.
- CP.15 M. Chiarandini, R. Fagerberg, S. Gualandi (2012). Towards fair and efficient assignments of students to projects. In *Proceedings of the 9th International Conference on the Practice and Theory of Automated Timetabling (PATAT2012)*, pp. 388–390. Extended abstract.
- CP.14 M. Chiarandini, G. Galbiati, S. Gualandi (2011). Efficiency issues in the RLF heuristic for graph coloring. In L. D. Gaspero, A. Schaerf, T. Stützle (Eds.), *Proceedings of the 9th Metaheuristics International Conference, MIC 2011*, pp. 461–469, Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica, Università di Udine, Udine, Italy. Source code available at <http://www.imada.sdu.dk/~marco/gcp/rlf>.
- CP.13 A. Helmar, M. Chiarandini (2011). A local search heuristic for chromatic sum. In L. D. Gaspero, A. Schaerf, T. Stützle (Eds.), *Proceedings of the 9th Metaheuristics International Conference, MIC 2011*, pp. 161–170, Dipartimento di Ingegneria Elettrica, Gestionale e Meccanica, Università di Udine, Udine, Italy.
- CP.12 M. Chiarandini (2010). Learning decision trees for the analysis of optimization heuristics. In C. Blum, R. Battiti (Eds.), *Proceedings of Learning and Intelligent Optimization (LION 2010)*, vol. 6073 of *Lecture Notes in Computer Science*, pp. 208–211, Springer.
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