

Anna Melchiori

PHD STUDENT, OPERATIONS RESEARCH



Personal Information

Affiliation Istituto per le Applicazioni del Calcolo "M. Picone" (IAC-CNR)
Via dei Taurini, 19
00185 Roma (Italy)
Email a.melchiori@iac.cnr.it - anna.melchiori@uniroma1.it
Phone (+39) 348 9114861
Date of birth 19th October 1987

Research

Dip. di Ingegneria Informatica Automatica e Gestionale "Antonio Ruberti", Sapienza University of Rome

Roma

09/2015 – to date

PHD STUDENT IN OPERATIONS RESEARCH (ABRO PHD)
Supervisor: Dr. Antonino Sgalambro
Stage of studies: Beginning of the second year

Istituto per le Applicazioni del Calcolo "Mauro Picone", National Research Council (CNR)

Roma

12/2014 – 09/2015

RESEARCH FELLOWSHIP
Main activities: Senior Technology Transfer Officer at Sportello Matematico per l'Industria Italiana
Research activities in the field of Network Flow Problems (Static and Dynamic)

Istituto per le Applicazioni del Calcolo "Mauro Picone", National Research Council (CNR)

Roma

09/2014 – 12/2014

INTERN
Main activities: Technology Transfer Officer at Sportello Matematico per l'Industria Italiana

Studies

Dip. di Matematica, University of Padova

Padova

2011 – 2014

MASTER STUDENT IN MATHEMATICS
Level in national classification: 110/110
Thesis: "Experiments with branching on general disjunctions"
A novel heuristic for branching on general disjunctions has been developed and implemented (solver SCIP). Its computational performances have been compared with existing techniques of branching. The rule is now available in the SCIP 04/2015 Release.

Konrad-Zuse_Zentrum fuer Informationstechnik (ZIB)

Berlin

11/2013 – 06/2014

LLP-ERASMUS PLACEMENT STUDENT
Main activities: Writing of the master's thesis; Collaboration with the Integer Programming Research Team;
Development of the MIP solver SCIP;

Galatasarai Universitesi

LLP-ERASMUS STUDENT

Istanbul

09/2012 – 06/ 2013

Dip. di Matematica, University of Padova

BACHELOR STUDENT IN MATHEMATICS

Level in national classification: 95/110

Thesis: "Air Traffic Flow Management:

Teoric and computational comparison between two integer programming approaches"

Padova

2006 – 2011

Technical-Commercial School for Tourist "L. Einaudi"

Padova

2001 – 2006

Languages

ITALIAN Mother tongue, ENGLISH Good, GERMAN Scholastic, TURKISH Basic

Programming Skills

- Programming languages: C, C++, Python, OPL, AMPL
- Tools: ILOG CPLEX, SCIP, MatLAB (basic), LaTeX, Wolfram Mathematica,
- Operative System: Windows, Linux

Publications

- Gamrath G., Melchiori A., Berthold T., A. Gleixner, and D. Salvagnin. *Branching on Multi-aggregated Variables*. In: Integration of AI and OR Techniques in Constraint Programming, LECTURE NOTES IN COMPUTER SCIENCE, Vol. 9075, pp 141-156, 2015.
- Melchiori A., Sgalambro A.. *Optimizing Emergency Transportation through Multicommodity Quickest Paths*, TRANSPORTATION RESEARCH PROCEDIA, Vol. 10, pp 756-765, Elsevier, 2015.

Schools

NETOPT2016 Network Optimization

Estoril 01/2016

EPS2016 Euro PhD School in Matheuristics

Lorient 04/2016

ISCO2016 Extended Formulations for Combinatorial Optimization

Vietri sul mare 05/2016

COST/MINO Phd School on Advanced Optimization Methods

Roma 06/2016

Conferences

EWGT2015 18th Euro Working Group on Transportation

Delft

SPEAKER AT THE SESSION: Operations research and decision support systems,

07/2015

Dissertation: Optimizing Emergency Transportation through Multicommodity Quickest Paths

AIRO2016 46th Annual Conference of the Italian Operations Research Society

Trieste

SPEAKER AT THE PLENARY SESSION with Dr. Antonino Sgalambro

09/2016

Dissertation: Sportello Matematico: a project for Innovation through Mathematical Technologies

Teaching Experience

Sapienza University of Rome in the Faculty of Statistics for Management

Roma

TEACHING ASSISTANT of Dr. Antonino Sgalambro for the Optimization Laboratory

a.a 2014 - 2015

Lecture