Alberto Santini

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Position
Postdoctoral Researcher (upcoming position)
Chair: "Deutsche Post Lehrstuhl für Optimierung von Distributionsnetzwerken"
Chair held by Prof. Michael Schneider
Fixed-term postdoctoral position Jan-Sep 2017

Affiliation
RWTH Aachen
School of Business and Economics
Kackertstraße 7 — D-52072 Aachen (Germany)

Education

2014-16
University of Bologna, Italy
PhD in Automatic Control and Operational Research
Supervisors: Silvano Martello, Daniele Vigo
The defence will take place in Apr 2017

2011-13
University of Copenhagen, Denmark
MSc in Mathematics, part of the Master of Excellence programme
Grade: 12/12

2008-10
University of Catania, Italy
BSc in Mathematics
Grade: 110/110 summa cum laude

2002-07
Liceo Scientifico "A. Volta", Caltanissetta, Italy
Scientific Diploma
Grade: 100/100

Publications Journal Papers (published or submitted)

2016
1. Alberto Santini, Stefan Ropke, and Christian E.M. Plum. A branch-and-price approach to the Feeder Network Design Problem. *European Journal of Operational Research (under revision)*, pages 1–16, 2016

2. Enrico Malaguti, Silvano Martello, and Alberto Santini. The Travelling Salesman Problem with pickups, deliveries, and draft limits. *Submitted to Omega*, pages 1–19, 2016

3. Andrea Bettinelli, Alberto Santini, and Daniele Vigo. A real-time conflict solution algorithm for the Train Rescheduling Problem. *Transportation Research, Part B (under revision)*, pages 1–28, 2016

4. Fabio Furini, Enrico Malaguti, and Alberto Santini. Exact and euristic algorithms for the Partition Colouring Problem. *Submitted to Computers & Operations Resarch*, pages 1–17, 2016

5. Alberto Santini, Stefan Ropke, and Lars Magnus Hvattum. Measuring the impact of acceptance criteria on the Adaptive Large Neighbourhood Search metaheuristic. *Submitted to the Journal of Heuristics*, pages 1–25, 2016

2015
6. Alberto Santini, Henrik Alsing Friberg, and Stefan Ropke. A note on a model for quay crane scheduling with non-crossing constraints. *Engineering Optimization*, 47(6):860–865, 2015

Publications Journal Papers (in preparation)

2016
    7. Stefan Ropke and Alberto Santini. Parallel Adaptive Large Neighbourhood Search. *In preparation*, pages 1–16, 2016

    8. Eduardo Alvarez, Rodrigo Linfati, Armine Minasyan, Michele Monaci, and Alberto Santini. A nested branch-and-cut-and-price algorithm for the Multi-Activity Multi-Skill Shift Scheduling Problem. *In preparation*, pages 1–25, 2016

    9. Andrew Goldberg, Mauricio Resende, and Alberto Santini. Applying metaheuristics to a rich Truckload Pickup and Delivery Problem. *In preparation*, pages 1–20, 2016

    10. Daniel Fleischman and Alberto Santini. A Semidefinite Programming solver based on a subgradient algorithm for hyperbolic programmes. *In preparation*, 2016

    11. Demetrio Laganà and Alberto Santini. Exact solution methods for the Constrained Shortest Path Tour Problem. *In preparation*, 2016

    12. Alberto Santini, Thibaut Vidal, and Daniele Vigo. On the impact of decomposition strategies for solving large-scale Capacitated Vehicle Routing Problems. *In preparation*, 2016

Conference Proceedings

2016
    13. Alberto Santini, Stefan Ropke, and Lars Magnus Hvattum. Poster: A comparison of acceptance criteria for the ALNS metaheuristic. In *AIRO 2016 Conference*, 2016

    14. Alberto Santini, Stefan Ropke, and Lars Magnus Hvattum. A comparison of acceptance criteria for the Adaptive Large Neighbourhood Search metaheuristic. In *EURO 2016 Confernce*, 2016

2015
    15. Enrico Malaguti, Silvano Martello, and Alberto Santini. A maritime version of the Travelling Salesman Problem. In *Odysseus 2015 Conference*, 2015

    16. Alberto Santini, Stefan Ropke, and Christian E.M. Plum. A rich maritime extension of the Vehicle Routing Problem. In *AIRO 2015 Conference*, 2015

2014
    17. Enrico Malaguti, Silvano Martello, and Alberto Santini. The Travelling Salesman Problem with pickup, delivery and draught limits. In *AIRO 2014 Conference*, 2014

Technical Reports

2015
    18. Valentina Cacchiani, Alberto Santini, and Daniele Vigo. A study on metaheuristic approaches to the energy-efficient Train Timetabling Problem. Technical Report OR-15-6, DEI, University of Bologna, 2015

2014
    19. Valentina Cacchiani, Alberto Santini, and Daniele Vigo. A novel modelling approach to the Train Timetabling Problem. Technical Report OR-14-27, DEI, University of Bologna, 2014

Academic experience Organisation

Feb 2017
    Workshop Organiser
Organising, together with Lavinia Amorosi (Rome "La Sapienza" University) the 1st AIRO Young Workshop, on the theme "Emerging Optimization Problems on Complex Networks". It will take place in Rome, 16-17 February 2017.

2016
    Founder and Coordinator
Founder and coordinator of AIRO Young, the youth chapter of the Italian Operational Research Association (AIRO).

SEP 2016	**Poster Session Chair**
	"Young OR Researchers Poster Session" at AIRO 2016 Conference.
JUL 2016	**Session Chair**
	"Methodological advancements in metaheuristics" at EURO 2016 Conference.
2016	**EURO Young Researchers OR Webinars Organiser**
	Organised a series of OR webinars by and for young researchers from all over the world, sponsored by EURO.
SEP 2015	**Session Chair**
	"Exact Methods for Routing Problems" at AIRO 2015 Conference.
2015	**Seminars Organiser**
	Organised of a series of doctoral seminars within the Operational Research group at DEI, University of Bologna, involving local and visiting researchers.

Academic experience Teaching

2016-17	**Teaching assistant**
	Course "Foundations of OR", A-K cohort taught by Enrico Malaguti, L-Z cohort taught by Michele Monaci. M. Eng. in Management Engineering, University of Bologna.
2016-17	**Teaching assistant**
2015-16	Course "Optimisation Algorithms M" taught by Paolo Toth. M.Eng. in Computer Engineering, University
2014-15	of Bologna.

Academic experience Visiting Positions

JUL-OCT 2016	**Amazon Inc.**
	Visiting Research Scientist in Seattle, USA. Working with Mauricio Resende and Andrew Goldberg.
FEB 2016	**Vrije Universiteit Amsterdam**
	Visiting PhD Student at the Department of Information, Logistics and Innovation. Working with Wout Dullaert.
NOV 2015	**University of Calabria**
	Visiting PhD Student at the Department of Mechanical, Energy and Management Engineering. Working with Demetrio Laganà.
MAR-MAY 2015	**Danish Technical University (DTU)**
	Visiting PhD Student at the Department of Management Engineering. Working with Stefan Røpke.

Grants

2016	**Association of European Operational Research Societies (EURO)**
	Grant to organise the "EURO Young Researchers OR Webinars".
	Funded: 1000 Eur.
2015	**Marco Polo scholarship**
	Grant to conduct research abroad.
	Funded: 1878 Eur (three months).
2014-16	**PhD grant by the University of Bologna**
	Ranked 1st out of 9 qualified participants (grade: 92/100).
	Funded: 40915 Eur (three years).

Invited talks

2016   **"A real-time conflict resolution algorithm for the train rescheduling problem."**
Invited to present at: Vrije Universiteit, Amsterdam (Feb 2016); Danish Technical University, Copenhagen (Oct 2016); DSB Training Centre, Nyborg (Oct 2016).

2015   **"TSP with pickups, deliveries, and draught limits."**
University of Bologna. Part of a series of seminars held by PhD students and young researchers.

2014   **"Recent trends in Operational Research and practical business applications."**
American University of Armenia; series of two seminars at the College of Science and Engineering.

2014   **"Data Enevelopment Analysis and OR applications in measuring efficiency."**
University of Bologna; part of the course in Resource Optimization, M.Eng. in Management Engineering.

Supervised projects and theses

Sep-Dec 2016   **Project, M.Eng. in Management Engineering**
Co-supervisor, "Embedding robustness in train rescheduling algorithms", Alessandro Morandi.

Feb-Apr 2016   **Project, M.Eng. in Computer Engineering**
Co-supervisor, "A genetic algorithm for real-time energy optimisation of train timetables", Francesco Di Lella.

Sep-Dec 2015   **Master Thesis, M. Eng. in Management Engineering**
Co-supervisor, "Metaheuristic algorithms for energy optimisation in train timetabling and rescheduling", Hang Xu.

Mar-Jun 2015   **Project, M.Eng. in Computer Engineering**
Co-supervisor, "A constructive heuristic for the dispatching problem on multi-track territories", Giacomo Dall'Olio and Simone Laierno.

Aug-Nov 2014   **Master Thesis, M.Eng. in Management Engineering**
Co-supervisor, "Valutazione della Performance di un caso di Customer Contact Desk attraverso l'applicazione della metodologia Data Envelopment Analysis", Martina Carli.

Work experience

2016   **Amazon**
Research Scientist Intern. Seattle, USA.

2012-13   **Procter & Gamble**
Strategic Sourcing Intern. Bruxelles, Belgium.

2012   **WISON Offshore & Marine**
Procurement Trainee. Shanghai, China.

2011-12   **Amiiko**
Web Developer. Copenhagen, Denmark.

Other

Languages   Italian: mothertongue
English: fluent
French: fluent
Danish: proficient
Armenian: studying

Volunteering   Italian Red Cross
                Danish Red Cross
                International Rotaract Club of Copenhagen