

## Europass Curriculum Vitae

### Personal information

Surname(s) / First name(s) **Morandi, Valentina**  
Email(s) **Valentina.Morandi@unibz.it**  
Nationality(-ies) **Italian**  
Date of birth **18/12/1985**

### Education since leaving school:

Institute **University of Brescia, 2014 – 2016**  
PhD degree **PhD in AEB. Field: Operations Research 31/05/2017**  
Institute **Cattolica University of Brescia, 2011 – 2013**  
Master degree **Master degree in Mathematics**  
Institute **University of Verona, 2006 – 2011**  
Bachelor degree **Bachelor degree in Applied Mathematics**

### PhD schools:

Verolog 2-days mini-school on VRP 2014 - University of Bologna  
EPSRral European PhD School on Routing and Logistic 24/06-3/07/2015 - University of Brescia  
NATCOR course in Combinatorial optimizazion 7/09-11/09/2015 - University of Southampton(UK) supported by EURO  
Workshop ALIAS 9/12/2015 on Transportation for ageing society  
NATCOR Heuristics and Approximation Algorithms course 4/04/2016-8/04/2016 - University of Nottingham(UK) supported by EURO

### Present appointment:

Position: **Fixed Term Assistant Professor (RTDA) - Free University of Bozen - Teaching duties for the "Operations Research" course within the Science and Technology faculty**  
Period of time: **October 2018 – Now**

### Professional experience:

Position: **PhD in Analytics for Economics and Business at University of Bergamo jointly with Brescia (Operation Research group)- Grant winner. My Phd thesis was the only one graded Excellent and having the right of publication in the XXIX cycle**  
Period of time: **2014 – 2017**  
Position: **Post-Doc position supervised by Prof.Speranza - "Transportation and Big Data" - University of Brescia**  
Period of time: **March 2017 – February 2018**

Position: Post-Doc position supervised by Prof.Speranza - University of Brescia - Principal investigator in models and algorithms to optimize the fashion retail supply chain  
Period of time: March 2018 – September 2018

### **Experience in academic teaching:**

Position: Teaching assistant for bachelor degree course "Operations Research" - Università degli studi di Brescia  
Period of time: 2015 – 2016  
Position: Teaching assistant for bachelor degree course "Operations Research - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
Period of time: 2015 – 2016  
Position: Teaching assistant for master degree course "'Supply chain management"' - Università degli studi di Brescia  
Period of time: 2015 – 2016  
Position: Teaching assistant for master degree course "'Supply chain management - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
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Position: Teaching assistant for bachelor degree course "Operations Research" - Università degli studi di Brescia  
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Position: Teaching assistant for bachelor degree course "'Operations Research - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
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Position: Teaching assistant for master degree course "'Supply chain management - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
Period of time: 2016 – 2017  
Position: Teaching assistant for bachelor degree course "Operations Research" - Università degli studi di Brescia  
Period of time: 2017 – 2018  
Position: Teaching assistant for bachelor degree course "'Operations Research - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
Period of time: 2017 – 2018  
Position: Teaching assistant for bachelor degree course "Fundamentals of Computer Science - Python Lab"' - Università Bocconi di Milano  
Period of time: 2017 – 2018  
Position: Teaching assistant for bachelor degree course "'Operations Research - Modelling languages Lab: MPL "' - Università degli studi di Brescia  
Period of time: 2018 – 2019  
Position: Professor in charge for english taught bachelor degree course "'Operations Research"' - Freie Universiteit Bozen  
Period of time: 2018 – 2019

### **Other academic responsibilities:**

Reviewer: Peer-reviewer for top journals in Operations Research: Transportation Research B, European Journal of Operation Research, Transportation Science, Computers and Operations Research and Soft Computing  
Committee member: 6th Student Conference on Operational Research (SCOR 2018) 6/04/2018-8/04/2018 in Nottingham(UK). Main role: abstracts and proceedings reviewer - Scientific Committee

Treasurer: AIROyoung - Under 35 section of AIRO (italian operations research organization) years 2018-2021. Main role: treasurer and organizing committee for AIRO young workshop and PhD schools

Scientific head: Green.GO - Ambiente Parco (Brescia). Main role: developing an interactive laboratory on logistic and multimodal transportation for students from primary school to high school. Main role: in charge for scientific matters, models developer and consultant. Main organizer for the event "Notte dei Ricercatori" for 2017 and 2018.

Scientific staff member: SMASH - SMARt platform to enabling high performance processes in fashion's Supply cHains. Project funded by UE and Regione Lombardia with main head ACT Operations research srl. Main role: designer of the optimization model for the supply chain cost minimization and code developer.

### Memberships:

AIRO - Associazione Italiana Ricerca Operativa  
EURO - Association of European Operational Research Societies  
VEROLOG - Working Group on Vehicle Routing and Logistics Optimization  
AIROyoung - Associazione Italiana Ricerca Operativa chapter under 35

### Research and scholarships:

PhD scholarship from 2014 to 2017

### Publications:

"Linear programming models for a fair and efficient traffic assignment in congested road networks" PhD Thesis. Graded Excellent and having the right of publication in the XXIX cycle, Author: *V. Morandi* DOI: <https://doi.org/10.6092/TDU nibg77251>

"Proactive route guidance to avoid congestion" Authors: E. Angelelli, I. Arsik, *V. Morandi, M. Savelsbergh, M.G.Speranza* Published in *Transportation Research B: Methodological* DOI: <https://doi.org/10.1016/j.trb.2016.08.015>

"Congestion avoiding heuristic path generation for the proactive route guidance" Authors: E. Angelelli, *V. Morandi, M.G.Speranza*. Published in *Computers and Operations Research* DOI: <https://doi.org/10.1016/j.cor.2018.07.009>

"System optimal routing of traffic flows with user constraints using linear programming" Authors: E. Angelelli, *V. Morandi, M. Savelsbergh, M.G.Speranza*. Submitted to *EJOR* and actually under the first revision evaluation(available as working paper on [www.unibs.it](http://www.unibs.it))

"Heuristic Iterative path GENERation for the linear constrained system optimum" Authors: E. Angelelli, *V. Morandi, M.G.Speranza*. (working paper on [www.unibs.it](http://www.unibs.it))

"A trade-off on the worst case and the average case optimization in system optimal traffic assignment with users' constraints" Authors: E. Angelelli, *V. Morandi, M.G.Speranza*. Submitted to *Computers and Operations Research* and actually under the first revision evaluation(available as working paper on [www.unibs.it](http://www.unibs.it))

"User time constrained system optimal routing of traffic flows" Authors: E. Angelelli, *V. Morandi, M.G.Speranza*. Submitted to *Transportation Research B: Methodological* and actually under the second revision evaluation(available as working paper on [www.unibs.it](http://www.unibs.it)).

### Conferences:

5th Student Conference on Operational Research (SCOR 2016) 8/04/2016-10/04/2016 in Nottingham(UK) presenting 'Dynamic path generation for the Proactive Route Guidance approach'

VeRoLog 2016: annual workshop of the EURO working group on Vehicle Routing and Logistics optimization (VeRoLog) 6/06/2016-8/06/2016 Nantes(FR) presenting 'Dynamic path generation for the Proactive Route Guidance approach'

VeRoLog 2017: annual workshop of the EURO working group on Vehicle Routing and Logistics optimization (VeRoLog) 10/07/2017-12/07/2017 Amsterdam(NL) presenting 'System optimal routing of traffic flows with users' constraints'

AiroYoung workshop 2018: annual workshop of the young chapter of AIRO (italian operations research association 27/02/2018-3/03/2018 Cosenza(IT) presenting 'A trade-off on the worst case and the average case optimization in system optimal traffic assignment with users' constraints'

6th Student Conference on Operational Research (SCOR 2018) 5/04/2018-7/04/2018 in Nottingham(UK) presenting ' A trade-off on the worst case and the average case optimization in system optimal traffic assignment with users' constraints '

EURO/ALIO 2018: invited speaker in session "Mathematical programming for urban routing problems" 25/06/2018-27/06/2018 Bologna(IT) presenting 'User time constrained system optimal routing of traffic flows'

EURO 2018: annual conference on Operations Research 9/07/2018-11/07/2018 Valencia(SP) presenting 'User time constrained system optimal routing of traffic flows'

ODS 2018: annual italian conference on Operations Research promoted by AIRO 10/09/2018-13/09/2018 Taormina (IT) presenting 'A collaborative DARP for transport firms in city networks'

## Language competence:

Mother tongue(s)

Foreign languages:

*Self-assessment  
European level<sup>(\*)</sup>*

**English**  
**Spanish**  
**German**

## Italian

English (IELTS C1), Spanish (basic), German (basic)

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
Very good	Very good	Good	Good	Very good
Basic	Basic	Basic	Basic	Basic
Basic	Basic	Basic	Basic	Basic

<sup>(\*)</sup> Common European Framework of Reference (CEF) level

## IT competence:

Use of Microsoft Office:

Specialized software:

Programming languages:

Research interests

Very good

Matlab(Good), Octave (Discrete), MPL (Very good), Autocad (Sufficient), CPLEX (Very good), GUROBI (Very Good)

Java (Very good) and CPLEX/GUROBI concert technology, LaTeX (Very good), C (Good), Python (Good), C++ (Discrete), PHP & my SQL(Basic)

Linear optimization, traffic assignment, transportation problems, combinatorial optimization, algorithms, vehicle routing, machine learning