



Tiziano Bacci

Date of birth: 23/01/1987 | **Nationality:** Italian | **Email address:** tiziano.bacci@iasi.cnr.it
| **Address:** Via dei taurini 19, 00185, rome, Italy (Work)

WORK EXPERIENCE

ISTITUTO DI ANALISI DEI SISTEMI ED INFORMATICA "ANTONIO RUBERTI", CONSIGLIO NAZIONALE DELLE RICERCHE - ROME, ITALY

RESEARCH SCIENTIST IN OPERATIONS RESEARCH 28/12/2018 - 01/01/2023

SENIOR RESEARCH SCIENTIST IN OPERATIONS RESEARCH 01/01/2023 - CURRENT

His main research interest are the development of exact and heuristic algorithms for combinatorial optimization and Mixed-Integer Nonlinear optimization problems. The main applications are in energy, logistics and healthcare and routing.

01/01/2014 - 01/04/2018 - ROME, ITALY

RESEARCH FELLOW IN OPERATIONS RESEARCH ISTITUTO DI ANALISI DEI SISTEMI ED INFORMATICA "ANTONIO RUBERTI", CONSIGLIO NAZIONALE DELLE RICERCHE

EDUCATION & TRAINING

01/01/2014 - 01/04/2018

PHD IN COMPUTER SCIENCE, OPERATIONS RESEARCH- UNIVERSITÀ DI ROMA TOR VERGATA

01/11/2009 - 01/04/2012 - ROME, ITALY

MASTER'S DEGREE IN MANAGEMENT ENGINEERING- UNIVERSITÀ DI ROMA TOR VERGATA

01/10/2006 - 01/11/2009

BACHELOR'S DEGREE IN MANAGEMENT ENGINEERING- UNIVERSITÀ DI ROMA TOR VERGATA

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s): **ENGLISH**

SKILLS

linguaggi di programmazione c, java,python | IBM Cplex | Gurobi Optimization | SQL and MS-SQL | Microsoft Office

PROJECTS

30/11/2022 - 01/02/2026

ACHILLES - ecosustainable efficient tech-driven Last mile logistics Local unit coordinator, PRIN 2022 for CNR-IASI

01/09/2023 - 26/02/2026

Robotics and AI for Socio-economic Empowerment - RAISE Local unit coordinator, PNRR project for CNR-IASI

2021 - CURRENT

Urban Intelligence Science Hub for City Network – UISH participant

30/11/2019 - 01/01/2026

Casa delle tecnologie Emergenti Matera – CTEMT participant

30/11/2019 - 01/12/2025

Autonomous and flexible Manufacturing and Augmented Reality techniques for Processes Automation participant, MISE, Fondo per la Crescita Sostenibile – Sportello “Fabbrica Intelligente” PON I&C 2014-2020

2020 - 2023

Reverse Manufacturing INnovation Decision System - REMIND participant, Programma POR-FESR Regione Lazio 2014-2020 "Circular Economy e Energia"

2017 - 2020

Smart PORT Terminals – SPORT participant, PRIN MIUR 2015 cod. 2015XAPRKF

2017 - 2020

Nonlinear and Combinatorial Aspects of Complex Networks participant, PRIN MIUR PRIN2015 cod. 2015B5F27W

2013 - 2015

Container Transshipment Station - CONTRAST participant, POR FES regione Lazio FILAS-CR-2011-1315)

● PUBLICATIONS

[**A Benders decomposition approach for planning home blood donations**](#)

Bacci, T., Lanzarone, E., Mattia, S., Ventura, P. Flexible Services and Manufacturing Journal Open source preview, 2025, 37(4), pp. 1117–1147.

[**New Mixed-Integer Nonlinear Programming Formulations for the Unit Commitment Problems with Ramping Constraints**](#)

Write here the description...

Bacci T., Frangioni A., Gentile C., Kostas Tavlaridis-Gyparakis - 2023 - Operations Research.

[**Lagrangian Methods and Dynamic Programming-Based MIP Formulations for the Unit Commitment Problem**](#)

Bacci, T., Frangioni, A., Gentile, C. International Series in Operations Research and Management Science Open source preview, 2024, 353, pp. 417–468.

[**A branch-and-cut algorithm for the restricted Block Relocation Problem**](#) 2020

Bacci T., Mattia S., Ventura P. - European Journal of Operational Research nr. 287 pagg. 452-459.

[**The Bounded Beam Search algorithm for the Block Relocation Problem**](#) 2019

Bacci T., Mattia S., Ventura P. - Computers & operations research nr. 103 pagg. 252-264.

[**The realization-independent reallocation heuristic for the stochastic container relocation problem**](#)

2022

Bacci T., Mattia S., Ventura P. - Soft Computing nr. 27 pagg. 4223-4233.

[**Start-up/Shut-Down MINLP Formulations for the Unit Commitment with Ramp**](#) 2021

Bacci T., Frangioni A., Gentile C. - AIRO Springer Series, vol 5. Springer, Cham pgg. 335-347.

[On the benchmark instances for the bin packing problem with conflicts](#) 2021

Bacci T., Nicoloso S. - AIRO Springer Series, vol 5. Springer, Cham pagg. 171-179.

[A New Software System for Optimizing the Operations at a Container Terminal](#) 2019

Bacci T., Conte S., Matera D., Mattia S., Ventura P. - in A View of Operations Research Applications in Italy.

[A New Lower Bound for the Block Relocation Problem](#) 2018

Bacci T., Mattia S., Ventura P. - Lecture Notes in Computer Science - Springer Cham.

[Some Complexity Results for the Minimum Blocking Items Problem](#) 2017

Bacci T., Mattia S., Ventura P. - Springer Proceedings in Mathematics & Statistics, Springer Cham.

- **CONFERENCES & SEMINARS**

03/04/2017 - 04/04/2017 Rome, Italy

member of organizer committee for 18th EU/ME workshop on metaheuristics for a better world

- **TEACHING**

01/02/2024 - 01/02/2025

Integer Programming and Combinatorial Optimization

Adjunct Professor Università di Roma La Sapienza

30/11/2018 - 30/11/2021

Metodi e modelli di ottimizzazione discreta 1, Bachelor's Degree in Management Engineering

Adjunct Professor Università di Roma Tor Vergata