PhD. Manuela Montangero - short CV
(March 2022)

Manuela Montangero is Associate Professor at the Dipartimento di Scienze Fisiche, Informatiche e Matematiche of the University of Modena and Reggio Emilia.

Education and Academic experience

- In 1996 she got her Laurea cum Laude in Computer Science from the University of Pisa .

- In 2001 she got her PhD in Computer Science from the University of Salerno.

- From 2001 to 2004 she has been at the Istituto di Informatica e Telematica of the National Research Council (CNR) of Pisa, with a PostDoc Fellowship (assegno di ricerca) at first and a temporary research associate position (ricercatore a tempo determinato) later.

- From 2005 to 2012 she has been research associate at the Dipartimento di Ingegneria dell'Informazione of the University of Modena and Reggio Emilia.

- From 2006 to 2016 she has been a collaborator of the Istituto di Informatica e Telematica, National Research Council (CNR) in Pisa.

- From 2012 to 2021 she has been research associate at the Dipartimento di Scienze Fisiche, Informatiche e Matematiche of the University of Modena and Reggio Emilia.

- Starting 2022 she is associate professor at the Dipartimento di Scienze Fisiche, Informatiche e Matematiche of the University of Modena and Reggio Emilia.

Research activity

Her research interests include algorithms (exact, approssimate and distributed), social and multimedia computing, combinatorics and bioinformatics.

She published more than 60 research journal/conference papers. Among her conference papers: two won a *Best Paper Award*, one an *Outstanding Paper Award*, two were *Best Paper Runner Up* and six were selected and invited for an *extended journal version*.

A selected list of recent journal papers includes:

- M. Furini, O. Gaggi, S. Mirri, M. Montangero, E. Pelle, F. Poggi, C.Prandi, *Digital Twin and Artificial Intelligence as Pillars of Personalized Learning Models*, to be published in Communications of the ACM in 2022.

- M. Furini, F. Mandreoli, R. Martoglia, M. Montangero, *A Predictive Method to Improve the effectiveness of Twitter Communication in a Cultural Heritage Scenario*, to be published in Journal on Computing and Cultural Heritage in 2022.

- G. Cabri, L. Gherardini, M. Montangero, F. Muzzini, *About auction strategies for intersection management when human-driven and autonomous vehicles coexist*, Multimedia Tools and Applications, 80, 15921-15936 (2021).

- G. De Marco, M. Leoncini, M. Montangero, *Distributed balanced color assignment on arbitrary networks*, Theoretical Computer Science, Vol. 809, pp 313-326 (2020).

- M. Leoncini, M. Montangero, P. Valente, *A Parallel Branch-and-Bound Algorithm to Compute a Tighter Tardiness Bound for Preemptive Global EDF*, Real-Time Systems, 55(2), 349-386 (2019).

Conference responsibilities

She has been in the *Technical Program Committee* of more than 20 international conferences and workshops. Among these, starting from 2018/2019 and for several editions: Italian Conference in Theoretical Computer Science (ICTCS), Workshops in Consumer Communication and Networking Conference (CCNC), International Conference on Smart Objects and Technologies for Social Good (Goodtechs), International Conference on Information Technology for Social Good (GoodIT).

She has been T*echnical Program Chair* of the "International Workshop on Social Media Sensing (SMS)" within CCNC2018 and CCNC2019. She has been *Organizing Committee Member* for the "International Conference on Smart Objects and Technologies for Social Good (GOODTECHS 2018)", held in Bologna in 2018.

Reviewer activity

She has been reviewer for:

- international conferences, among which, in the latest years and for several editions: Italian Conference in Theoretical Computer Science (ICTCS),   Consumer Communication and Networking Conference (CCNC), International Conference on Smart Objects and Technologies for Social Good (Goodtechs), and International Conference on Information Technology for Social Good (GoodIT).

- international journals, among which, in the latest years: Theoretical Computer Science, Multimedia Tools and Applications, Journal of Parallel and Distributed Computing, ACM Transaction on Autonomous and Adaptive Systems, Foundamentae Informatica, Sustainable Cities and Society, Algorithms, Technology in Society.

- McGrawHill publishing house.

- ERC Consolidator Grant 2018.

PhD program activity

She has been involved in the following *PhD programs*:

- Starting 2013, PhD program in *Mathematics* of the consortium of the Università di Modena e Reggio Emilia, Università di Parma e Università di Ferrara.

- From 2006 to 2012, PhD program in *Multiscale Modelling, Computational Simulations and Characterization in Material and Life Sciences* of the Università di Modena e Reggio Emilia.

She has been supervisor or co-supervisor of three PhD thesis in computer science, and has collaborated with three other PhD students in computer science during their PhD studies. These collaborations lead to the publication of more than 10 papers.

Teaching

Her teaching activity for the Università di Modena and Reggio Emilia includes:

- Starting 2005 to present: course in foundation of Computer Science for the bachelor program in Communication Science.

- Starting 2013 to present: courses in algorithms (foundation and advanced) for the bachelor and master programs in Computer Science.

- Starting 2006 to 2014: courses in bioinformatics for the PhD program in Multiscale Modelling, Computational Simulations and Characterization in Material and Life Science.

She has been supervisor or co-supervisor of several (>40) thesis for bachelor/master degree programs in Computer Science, Mathematics and Communication Science.

Public engagement and orientation

She is active in many public engagement and orientation events organized by the Dipartimento di Scienze Fisiche, Informatiche e Matematiche and by the Università di Modena and Reggio Emilia. The list of the latest activities includes:

- staring 2019: co-organizer of and teacher in the *MoReBot Coding and STEM Lab*, activity held once or twice a year and dedicated to high school students;

- starting 2017: co-organizer of and sometimes teacher in the *Una Settimana da Scienziato*, activity held once or twice a year and dedicated to high school students;

- starting 2016: participation to the *European Researchers' Night* in Modena as co-organizer of the department Computer Science stand.

Academic service

Her most recent services for the Dipartimento di Scienze Fisiche, Informatiche e Matematiche and for the Università di Modena and Reggio Emilia include:

- Starting 2021: department representative in the university *Communication Group*

- Starting 2019: department representative in the university *Sustainability Group*

- From 2019 to 2022: responsabile for the department *Web site*

- Starting 2018: member of the D*epartment Council*