

PERSONAL INFORMATION

Carla Limongelli



📍 Department of Civil, Computer Science and Aeronautical Technologies Engineering, Roma Tre University  
Via Vito Volterra, 62 - 00146 Roma Italy

☎ +390657333222

✉ [carla.limongelli@uniroma3.it](mailto:carla.limongelli@uniroma3.it)

Sex Female | Date of birth 13/11/1961 | Nationality Italian

PRESENT POSITION

Associate Professor

EDUCATION, TRAINING, AND WORK

- 1987 Diploma in Mathematics
- 1992 Ph.D. in Computer Science
- 1993-1994 Post Doc fellowship and visiting scientist at RISC-Linz, Austria (Research Institute for Symbolic Computation)
- 1995-2005 Researcher position at Dept. of Computer Science and Automation, Roma Tre University from 1995 to 2005
- 2006 Associate Professor at Roma Tre University

RESEARCH AND TEACHING ACTIVITY

**Teaching Activity**

A continuous teaching activity has started as teaching assistant for courses of Fundamentals of Computer Science, Functional Programming and Artificial Intelligence. She has taught and teaches various courses of Fundamentals of Computer Science for civil engineers and for Computer Science and a course on Algorithms and Data Structures. She teaches “Technologies and methodologies for e-learning” at the master in “e-learning and media education” at the Education Sciences Department of Roma Tre.

-She has taught and teaches courses of Fundamentals of Computer Science and Algorithms and Data Structures, “didactic of computer science” for teacher’s formation curriculum (TFA and PAS). She presently teaches Fundamental of Computer Science, Artificial Intelligence, and IT tools and methodologies for e-learning.

- She has been advisor of three PhD students at Roma Tre University and co-advisor of two PhD students at Griffith University – Queensland, Australia.

**Recent Research Activity**

Artificial Intelligence in Education. Her research activity is mainly focused on adaptive and intelligent e-learning systems, AI-driven personalization in online education, curriculum sequencing and recommendation systems, concept map analysis and knowledge representation, MOOCs and learning analytics, and more recently, her research has focused on the application of generative AI and multimodal models to cultural heritage, personalized museum experiences, and human–robot interaction, as well as on agentic AI architectures and AI-based automated source code assessment systems.

**Scientific Activity**

**Program committee member** of various international conferences such as ITHET, ICALT, HCI, ITHET 2016, ITS, UMAP, AIED (senior PC member).

**Co-chair** of the Doctoral consortium at ICWL 2016.

**Commission for diploma thesis awards** (Premio Lesmo) **AI\*IA 2017** (Associazione Italiana per l’Intelligenza Artificiale).

**Chair of the track** “Technology-Enhanced Adaptive Learning” of the congress ACM UMAP 2018 (User Modeling Adaptation and Personalization).

**Guest Editor** of the International Journal of Artificial Intelligence in Education (IJAIED) for the Special Issue: *AI4MOOCs: Artificial Intelligence, Sensoring, Modeling and Assessment for MOOCs. A Step Beyond*.

**Best paper award** at the 25th International Conference Information Visualisation (IV), 2021 with the paper “Enriching Didactic Similarity Measures of Concept Maps by a Deep Learning Based Approach” written with Daniele Schicchi and Davide Taibi.

**Program Co-Chair** of the international congress AIxIA (Italian Association for Artificial Intelligence) 2023, held in Rome, November 6-9, 2023.

Program Co-Chair of the 2nd International Workshop on Artificial Intelligence Systems in Education, held in Bolzano, November 26, 2024.

**Program Co-Chair** of the Doctoral Consortium at AIED (Artificial Intelligence in Education) 2025, held in Palermo, July 22-26, 2025.

**Program Co-Chair** of Wails 2025: 2<sup>nd</sup> International Workshop of Artificial Intelligence with and for Learning Sciences, held in Cagliari, December 10-12, 2025.

**Program Co-Chair** of the Workshop AI-LEAP, Perugia, October 2026.

**ORCID:** <https://orcid.org/0000-0002-0323-7738>

**Citation Indexes**

From Google Scholar	(All Citations 1946	h-index 22	i10index 52
	(Since 2021) Citations 861	h-index 14	i10-index 20
From Scoups	Citations 1202	h-index 20	

**ACTIVITIES AT ROMA TRE UNIVERSITY**

2020–2023: Substitute member of the Teachers Discipline Committee (Collegio di disciplina dei docenti) of the University “La Sapienza” of Rome (D.R. n. 780, 02.03.2020).

2019–2024: Member of the Board of the University Language Center (Centro Linguistico di Ateneo – CLA).

2017–2018: Collaboration in the development of an online course aimed at reducing first-year dropout rates in Computer Engineering programs, commissioned by the Roma Tre Education Foundation.

2017: Responsible for the training activity (development of a training program for the creation and management of a distance learning platform) of a technician from the Somali National University, within the agreement between the Italian Ministry of Foreign Affairs and International Cooperation and Roma Tre University for the project “Higher Education for Teachers of the Somali National University operating in Somalia”.

2017: Responsible for the research contract between the Inter-university Research Center for Sustainable Development (CIRPS) and the Department of Engineering for the management of the “Somali Web University” domain.

2015–2016: Participation in the MIUR “Talent Italy” competition, in collaboration with the Departments of Engineering, Education Sciences, Philosophy, Communication and Entertainment, the National Institute for the Deaf, and Kepler High School, presenting the MOOC “Thinking of Studying Engineering?”, ranked fifth.

2014–2017: Within the framework agreement between the Italian-Latin American Institute (ILLA) and Roma Tre University, coordination of the web platform for the creation of online courses on “Protección del Patrimonio Cultural y Lucha contra el Tráfico Ilícito” for Argentina, Bolivia, Colombia, Ecuador, Guatemala, and Peru (courses completed in May 2017).

2014–2015: Member of the Council and Scientific Committee of the 1st-level Master’s program “Experts in the Protection of Cultural Heritage”, managing the e-learning platform.

2013–2014 and 2014–2015: Member of the Scientific Committee of the course “La tutela del patrimonio culturale: conoscenza storica e diagnostica scientifica per il contrasto alle aggressioni criminali”, managing the e-learning platform.

2009–2013: Coordinator of a Faculty group on “Use of Technology in Education” (20/02/2009 – 25/09/2013).

**RECENT PROJECTS**

**From Authenticity to Art (FATA): Italian Database of Forgeries (2025–2027)**

**PRIN** project on cultural heritage protection through digitization, cataloguing, and analysis of art forgeries.

**DIGA Project: Sustainable Ecosystem for Education and Career Guidance (2025–2026)**

Educational and orientation activities in secondary schools (Fondazione Mondo Digitale; Fondo per la Repubblica Digitale). Includes classroom interventions within the PNRR *Next Generation Guidance* programme (MUR, 2022–2026).

**Next Generation Guidance Programme (PNRR – MUR) (2022–2026)**

National student orientation initiative with school-based educational interventions and training activities.

## Journals Publications

- Schicchi D., Limongelli C., Monteleone V., Taibi D. *A closer look at ChatGPT's role in concept map generation for education*. **Interactive Learning Environments**, 2026. — Citations: 4
- Limongelli C., Lombardi M., Marani A., Taibi D. *A Semantic Approach to Ranking Techniques: Improving Web Page Searches for Educational Purposes*. **IEEE Access**, 2022. — Citations: 14
- Limongelli C., Marani A., Sciarrone F., Temperini M. *Measuring the Similarity of Concept Maps According to Pedagogical Criteria*. **IEEE Access**, 2022. — Citations: 13
- Ferrato A., Limongelli C., Mezzini M., Sansonetti G. *Using Deep Learning for Collecting Data about Museum Visitor Behavior*. **Applied Sciences**, 2022. — Citations: 54
- De Benedictis R., De Medio C., Palombini A., Limongelli C., Cesta A. *Fostering the creation of personalized content for cultural visits*. **Applied Sciences**, 2021. — Citations: 7
- De Medio C., Limongelli C., Sciarrone F., Temperini M. *MoodleREC: A recommendation system for creating courses using the Moodle e-learning platform*. **Computers in Human Behavior**, 2020. — Citations: 162
- Gasparetti F., De Medio C., Limongelli C., Sciarrone F., Temperini M. *Prerequisites between learning objects: Automatic extraction based on a machine learning approach*. **Telematics and Informatics**, 2018. — Citations: 62
- Limongelli C., Lombardi M., Marani A., Sciarrone F., Temperini M. *A recommendation module to help teachers build courses through the Moodle Learning Management System*. **New Review of Hypermedia and Multimedia**, 2016. — Citations: 48
- Limongelli C., Sciarrone F., Temperini M. *A social network-based teacher model to support course construction*. **Computers in Human Behavior**, 2015. — Citations: 23
- De Marsico M., Limongelli C., Sciarrone F., Sterbini A., Temperini M. *UnderstandIT: A community of practice of teachers for VET education*. **WebIST 2014 Proceedings of the International Conference on Web Information Systems and Technologies**, 2014. — Citations: 4
- Limongelli C., Sciarrone F., Temperini M., Vaste G. *The Lecomps5 framework for personalized web-based learning: A teacher's satisfaction perspective*. **Computers in Human Behavior**, 2011. — Citations: 40
- Limongelli C., Sciarrone F., Vaste G. *Personalized e-learning in Moodle: The Moodle\_LS system*. **Journal of E-Learning and Knowledge Society**, 2011. — Citations: 51
- Limongelli C., Sciarrone F., Starace P., Temperini M. *An ontology-driven OLAP system to help teachers in the analysis of web learning object repositories*. **Information Systems Management**, 2010. — Citations: 22
- Limongelli C., Sciarrone F., Temperini M., Vaste G. *Adaptive learning with the LS-Plan system: A field evaluation*. **IEEE Transactions on Learning Technologies**, 2009. — Citations: 92
- Limongelli C., Sciarrone F., Vaste G. *An application of the LS-Plan system to an educational hypermedia*. **International Journal of Web-Based Learning and Teaching Technologies**, 2009. — Citations: 6
- Cialdea Mayer M., Limongelli C., Orlandini A., Poggioni V. *Linear temporal logic as an executable semantics for planning languages*. **Journal of Logic, Language and Information**, 2007. — Citations: 44
- Limongelli C., Pirastu R. *P-adic arithmetic and parallel symbolic computation: An implementation for solving linear systems over rationals*. **Computers and Artificial Intelligence**, 1996. — Citations: 1
- Limongelli C. *On an efficient algorithm for big rational number computations by parallel p-adics*. **Journal of Symbolic Computation**, 1993. — Citations: 4
- Limongelli C., Temperini M. *Abstract specification of structures and methods in symbolic mathematical computation*. **Theoretical Computer Science**, 1992. — Citations: 7

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