EUROPEAN FORMAT FOR THE CURRICULUM VITAE

<u>Personal details</u>

Surname/First Name	**Salaorni Francesca**
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Mobile	+39 3475589605
E-mail	fra.salaorni@gmail.com francesca.salaorni_02@univr.it
Nationality	Italiana
Date of birth	05/05/1994
Sex	F
Description	**Biomedical Engineer**

Summary

Biomedical engineer, with a master’s degree specialising in biomechanics and biomaterials. Experience in the field of motion analysis in clinical and sports settings. In the field of experimental neurological clinical research, peer review of scientific articles, biomechanical analysis and gait analysis using optoelectronic instrumentation and wearable devices. In the sports sector, I review scientific articles and conduct biomechanical and gait analysis using optoelectronic and wearable devices to analyse sporting performance and the influence of equipment on performance (winter sports, cycling, running, football). Excellent teamwork skills.
I am currently a researcher at the University of Verona

Work experience

January 2025 – Present
Research fellow on the PRIN2022 project "A window into the mind-brain- body: biomarkers development in Functional Motor Disorders"
University of Verona, Verona, Italy

January 2022 – December 2024
PhD student in Neuroscience, Psychological and Psychiatric Sciences, and Movement Sciences, with a research project "Digital telemedicine in improving health, social and economic outcomes in patients with Functional Motor Disorders"
University of Verona, Verona, Italy

December 2023 – Present
Head coach at U.S.D. Cadore Women (youth teams and women's Eccellenza division)
Verona

July 2023 – Present
Sports Director and Team Manager at U.S.D. Cadore Women (youth sector and women's Eccellenza division)
Verona

September 2024 - Present
Coach for the Evolution Programme Project within the Youth Sector of the Italian Football Federation (FIGC)
Verona

September 2022 – June 2024
Organisational Manager of the Federal Technical Centre (CFT) in Verona within the Youth Sector of the Italian Football Federation (FIGC)
Verona

July 2023 – June 2024
Fitness Coach at A.C.D. Raldon Sports Club (Men's Third Division)
Verona

July 2020 – January 2022
Postgraduate Research Fellow on "Assessment of sporting performance and interaction with climatic factors" at CeRiSM, the Mountain Sports Research Centre
University of Verona, Verona, Italy

Education and training

February 2024 - February 2025
Master in Sport in Management dello Sport System (1° level)
MasterSport (University of Modena and Reggio Emilia – University of the Republic of San Marino, Italy)

January 2022 – December 2024
PhD student in Neuroscience, Psychological and Psychiatric Sciences, and Movement Sciences, with a research project "Digital telemedicine in improving health, social and economic outcomes in patients with Functional Motor Disorders"
University of Verona, Verona, Italy

Settembre 2017 – 29 Marzo 2020
Master's Degree In Biomechanics and Biomaterial
Politecnico of Milano, Milano, Italy
102/110

2013 - 2017
Bachelor's Degree in Biomedical Engineering
University of Padua, Padua, Italy

2008-2013
Science High School
Enrico Medi High School, Villafranca di Verona, Verona, Italy

Name and typer of organisation providing education and training

Universityof Verona
PhD thesis: "Digital telemedicine in improving health, social and economic outcomes in patients with Functional Motor Disorders"

Politecnico of MIlano
Experimental Master's thesis in sport research: "*The effect of fatigue on joint kinematics during changes of direction in elite female footballers"*

University of Padua
Bachelor's thesis: *"A study of monitoring during the use of BCI in patients with amyotrophic lateral sclerosis"*

Publications

2020

- European Society of Biomechanics and XXIII ISEK Congress:
  Zago M., David S., Bertozzi F., Brunetti C., Gatti A., **Salaorni F**., Tarabini M., Galvani C., Sforza C., & Galli M. "*Fatigue alters turns kinematics in female soccer players*".

2021

- 26th Congress of the European Society of Biomechanics, ESB 2021:
  Zago M., David S., Bertozzi F., Brunetti C., Gatti A., **Salaorni F**., Tarabini M., Galvani C., Sforza C., & Galli M. "*Fatigue alters turns kinematics in female soccer players*".

- Frontiers in Bioengineering and Biotechnology, section Biomechanics, 9, 666841:
  Zago M., David S., Bertozzi F., Brunetti C., Gatti A., **Salaorni F.,** Tarabini M., Galvani C., Sforza C., & Galli M. "*Fatigue induced by repeated changes of direction in élite female football (soccer) players: impact on lower limb biomechanics and implications for ACL injury prevention".*

2022

- *Handbook MDS Technology,* Section 4, Ch. 19: Technologies in movement disorders: therapeutic innovations:
  *Gandolfi M. & **Salaorni F.** "Robotics and exoskeletons: Are we close to daily clinical implementation?"*.

- IEEE Congress*:*
  Modena R*., Pellegrini B., **Salaorni F**., Bortolan L., Schena F. "GPS devices for match analysis in soccer".*

2023

- Congress of I-RIM:
  Larini C., Sciamanna S., Ceruti G., Recchia G., **Salaorni F.,** Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A. "*Towards the digitalization of upper limbs rehabilitation: integration of a functional calibration procedure and usability study*".

- Congress of LIMPE:
  Salaorni F., Bonardi G., Schena F., Tinazzi M, Gandolfi M. *"Wearable devices for gait and posture monitoring in telemedicine in people with movement disorders and multiple sclerosis: a systematic review of literature".*

- Congress of LIMPE:
  Larini C., Sciamanna S., Ceruti G., Recchia G., **Salaorni F.,** Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A. "*Integrating a functional calibration procedure and usability study towards the digitalization of upper limbs rehabilitation*".

- Congress of SIRN:
  Salaorni F., Bonardi G., Schena F., Tinazzi M., Gandolfi M. *"Wearable devices for gait and posture monitoring in telemedicine in people with movement disorders and multiple sclerosis: a systematic review of literature".*

- Congress of SIRN:
  Larini C., Sciamanna S., Ceruti G., Recchia G., **Salaorni F.,** Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A. "*Integrating a functional calibration procedure and usability study towards the digitalization of upper limbs rehabilitation*".

- Congress of SiIT:
  Larini C., Sciamanna S., Ceruti G., Recchia G., **Salaorni F.,** Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A. "*Integrating a functional calibration*

procedure and usability study towards the digitalization of upper limbs rehabilitation".

- Expert Review of Medical Devices:
  Salaorni F., Bonardi G., Schena F., Tinazzi M., Gandolfi M. "Wearable devices for gait and posture monitoring via telemedicine in people with movement disorders and multiple sclerosis: A systematic review"

- Congress of LIMPE Adria:
  Gandolfi M., Bonetto C., Bonardi g., **Salaorni F.**, Sandri A., Geroin C., Menaspà Z., Smania N., Fiorio M., Tinazzi M. "*Quantitative gait biomarkers in patients with functional gait disorders: beyond Gait speed"*

- Congress of SIAMOC:
  F. Salaorni, G. Bonardi, Z. Menaspà, A. Sandri, L. Malgarise, F. Schena, M. Tinazzi, M. Gandolfi. "*Implementing an immersive Virtual Reality protocol for Functional Gait Disorders: an experimental study".*

2024

- Congress of SIRN:
  Salaorni F, Gandolfi M.,Bonardi G., Perin C., Sandri A., Malgarise L., Bonetto C., Schena F., Avanzino L., Pelosin E., Geroin C., Vidale D., Pirini M., Fiorio M., Tinazzi M., *"Immersive Virtual Reality and Gait Control: Unveiling Dual-Task Influences in Functional Gait Disorders"*

- Congress of LIMPE:
  Salaorni F, Gandolfi M.,Bonardi G., Perin C., Sandri A., Malgarise L., Bonetto C., Schena F., Avanzino L., Pelosin E., Geroin C., Vidale D., Pirini M., Fiorio M., Tinazzi M., *"Immersive Virtual Reality and Gait Control: Unveiling Dual-Task Influences in Functional Gait Disorders"*

- Congress of FND:
  Salaorni F, Gandolfi M.,Bonardi G., Perin C., Sandri A., Malgarise L., Bonetto C., Schena F., Avanzino L., Pelosin E., Geroin C., Vidale D., Pirini M., Fiorio M., Tinazzi M., *"Immersive Virtual Reality and Gait Control: Unveiling Dual-Task Influences in Functional Gait Disorders"*

- Congress of MNESYS:
  Salaorni F, Gandolfi M., Bonetto C., Sandri A., Bonardi G., Perin C., Crestani M., Malgarise L., Schena F., Avanzino L., Pelosin E., Geroin C., Vidale D., Pirini M., Fiorio M., Tinazzi M., *"Exploring the Impact of Immersive Virtual Reality on Spatiotemporal Gait Parameters in Functional Motor Disorders: A cross-sectional study"*

- Congress of RIMS:
  Crestani M., **Salaorni F.,** Straudi S., Gajofatto A., Rimondini M., Dionisi V., Landi S-. Morone G., Gandolfi M.
  "The effectiveness of combining a home-based Digital Telerehabilitation program with conventional in-hospital therapy in Progressive Multiple Sclerosis: a multicenter, randomized controlled trial"

- Digital Health Journal:
  Gandolfi M., Crestani M., Perachiotti G., **Salaorni F.,** Baroni A., Gajofatto A., Rimondini M., Donisi V., Landi S., Morone G., Smania N., Straudi S. *"The Effectiveness of Combining a Home-Based Digital Motor Telerehabilitation Program with Conventional Therapy in Progressive Multiple Sclerosis: A Study Protocol for a Multicenter Randomized Controlled Trial"*

- Journal of Neural Transmission:

Sandri A., Bonetto C., Fiorio M., **Salaorni F**., Bonardi G., Geroin. C., Smania N., Tinazzi M., Gandolfi M., *"Unraveling the Mechanisms of High-Level Gait Control in Functional Gait Disorders"*

2025

- Congresso LIMPE
  Francesca Salaorni[1], S. Camozzi[1], A. Sandri[1], G. Pedrotti[1], M. Fasoli[1], M. Crestani [1], I. Di Vico[1], C. Geroin[1], A. Rizzardi[2], A. Pilotto[2], F. Schena[1], M. Tinazzi [1], M. Gandolfi [1]
  "Implementation of a digital Telerehablitation protocol for the improvement of motor and non-motor outcomes and quality of life in patients with functional motor disorders: a two-arm randomized controlled clinical feasibility study".

- Congresso DISMOV:
  Francesca Salaorni[1], S. Camozzi[1], A. Sandri[1], G. Pedrotti[1], M. Fasoli[1], M. Crestani [1], I. Di Vico[1], C. Geroin[1], A. Rizzardi[2], A. Pilotto[2], F. Schena[1], M. Tinazzi [1], M. Gandolfi [1]
  "Implementation of a digital Telerehablitation protocol for the improvement of motor and non-motor outcomes and quality of life in patients with functional motor disorders: a two-arm randomized controlled clinical feasibility study".

- Congresso SIPF:
  Francesca Salaorni[1], S. Camozzi[1], A. Sandri[1], G. Pedrotti[1], M. Fasoli[1], M. Crestani [1], I. Di Vico[1], C. Geroin[1], A. Rizzardi[2], A. Pilotto[2], F. Schena[1], M. Tinazzi [1], M. Gandolfi [1]
  "Implementation of a digital Telerehablitation protocol for the improvement of motor and non-motor outcomes and quality of life in patients with functional motor disorders: a two-arm randomized controlled clinical feasibility study".

- Book:
  S. Straudi, A. Baroni, F. Salorni, M. Crestani, M. Gandolfi, "La valutazione motoria digitale in riabilitazione: esperienze dalla Malattia di Parkinson"Le scale di misura in riabilitazione", IV Edizione , ISBN 9788865152317, pag. 515

- Digital Health:
  Gandolfi M, Crestani M, Perachiotti G, et al. The effectiveness of combining a home-based Digital motor Telerehabilitation program with conventional therapy in progressive multiple sclerosis: A study protocol for a multicenter, randomized controlled trial. DIGITAL HEALTH. 2025;11. doi:10.1177/20552076251323995

2026

- Movement Disorders (ongoin):
  Marialuisa Gandolfi, Chiara Bonetto, Corrado Perin, Angela Sandri, Giulia Bonardi, Ilaria Antonella Di Vico, Laura Avanzino, Elisa Pelosin, Mauro Crestani, Christian Geroin, Denis Vidale, Marco Pirini, Mirta Fiorio, Michele Tinazzi, Francesca Salaorni. Why Use Immersive Virtual Reality to Assess Gait in Functional Motor Disorders?

- Springer Exercise Medicine and Health (ongoing):
  Marialuisa Gandolfi, Francesca Salaorni, Angela Sandri, Ilaria Antonella Di Vico, Christian Geroin, Andrea Rizzardi, Serena Camozzi, Giulia Pedrotti, Melania Fasoli, Walter Maetzler, Andrea Pilotto, Alessandro Padovani, Michele Tinazzi. Clinic-based improvement in functional motor disorders does not reflect persistent real-world behavioral inactivity: implications for digital endpoint development.

Main areas of expertise/professional skills	Gait analysis in healthy individuals, patients (with multiple sclerosis, Parkinson's disease and functional motor disorders) and athletes. Thanks to my work experience as a research fellow at CeRiSM (Research Centre for Mountain Sports), I gained an understanding of the methodology and applicability of various instruments in relation to the outcomes under investigation. This experience sparked my passion for research and led me to apply for the 37th cycle (PON Call) as a PhD student at the University of Verona. After being awarded the place, I had the opportunity to participate in several important projects where I was able to apply and expand upon the knowledge I had previously acquired. In addition to carrying out motion capture and analysis, I am also responsible for: - data collection, and the creation and updating of databases for patient data; - reviewing scientific articles on topics relevant to my studies; - developing protocols and utilising software for tracking and analysing data obtained during patients' movements through the use of sensors, baropodometric insoles and accelerometers; - the use of virtual reality; - supervising undergraduates during their placements and the drafting of their dissertations; - delivering lectures on movement analysis in certain Healthcare Professions courses. I have an excellent command of spoken and written English, including for scientific purposes.

Conferences / Seminars

- Congress of I-RIM, Milano, 7-13 October 2022

  Presentation of Poster "Towards the digitalization of upper limbs rehabilitation: integration of a functional calibration procedure and usability study" di Larini C., Sciamanna S., Ceruti G., Recchia G., **Salaorni F.,** Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A.

- Congress of SIRN, Riva del Garda, 16-18 April 2023

  Presentation of Poster "Wearable devices for gait and posture monitoring in telemedicine in people with movement disorders and multiple sclerosis: a systematic review of literature" di Salaorni F.**,** Bonardi G., Schena F., Tinazzi M., Gandolfi M.

- Congress LIMPE, Padova, 4-6 May 2023.

  Presentation of Poster "Integrating a functional calibration procedure and usability study towards the digitalization of upper limbs rehabilitation", di Larini C., Sciamanna S., Ceruti G., Recchia G., Salaorni F., Gandolfi M., Tinazzi M., Schena F., Garofalo P., Raggi M., & Ravizza A.

- Conference "Exercise and sport in Parkinson's disease", Verona, 23 June 2023

- Conference Focus On, Verona, 15 May 2023

- Congress SIAMOC, Rome, 4-7 October 2023.

  Presentation of Poster "Implementing an immersive Virtual Reality protocol for Functional Gait Disorders: an experimental study" di **F. Salaorni**, G. Bonardi, Z. Menaspà, A. Sandri, L. Malgarise, F. Schena, M. Tinazzi, M. Gandolfi.

- Congress LIMPE ADRIA, Trieste, 9-11 November 2023

  Presentation of Poster "Quantitative gait biomarkers in patients with functional gait disorders: beyond Gait speed", di Gandolfi M., Bonetto C., Bonardi g., **Salaorni F.**, Sandri A., Geroin C., Menaspà Z., Smania N., Fiorio M., Tinazzi M.

- Congress LIMPE, Brescia, 8-9 February 2024

  Presentation of seminar: Digital technologies for the remote monitoring of movement disorders
- Congress SIRN, Florence, 15-16 February 2024

  Presentation of Poster: "Immersive Virtual Reality and Gait Control: Unveiling Dual-Task Influences in Functional Gait Disorders"

- Congresso LIMPE, Milan, 10-12 April 2024

  Presentation of Poster: "Immersive Virtual Reality and Gait Control: Unveiling Dual-Task Influences in Functional Gait Disorders"

- Congress MNESYS, Bologna, 7 May 2024

  Presentation of Poster: "Exploring the Impact of Immersive Virtual Reality on Spatiotemporal Gait Parameters in Functional Motor Disorders: A cross-sectional study"

- Congress FND, Verona, 8-11 June 2024

  Presentation of Poster: "Exploring the Impact of Immersive Virtual Reality on Spatiotemporal Gait Parameters in Functional Motor Disorders: A cross-sectional study
- Congress LIMPE, Rome, 14-16 May 2025

Presentation of Poster: "implementation of a digital Telerehablitation protocol for the improvement of motor and non-motor outcomes and quality of life in patients with functional motor disorders: a two-arm randomized controlled clinical feasibility study".

- Congress DISMOV, Verona, 5.6 June 2025

  Presentation of Poster: "implementation of a digital Telerehablitation protocol for the improvement of motor and non-motor outcomes and quality of life in patients with functional motor disorders: a two-arm randomized controlled clinical feasibility study".

Grant

2024

- UEFA Medical Research Grant, Kinematics, psychological and physical research project: "Women footballers and ACL injuries under the microscope: physiological and psychological insights into injury patterns and prevention strategies"
- FIFA Research Grant, Kinematics, psychological and physical research project: "Women footballers and ACL injuries under the microscope: physiological and psychological insights into injury patterns and prevention strategies" **(Awarded)**

2023

- FISM Grant, Digital telemedicine research project: "The effectiveness of combining a home-based Digital motor Telerehabilitation program with conventional therapy in Progressive Multiple Sclerosis: a multicentre, randomized controlled trial". **Awarded**
- Call for PNRR, Functional motor disorders research project: "A window into the mind-brain-body interplay: development of diagnostic, prognostic biomarkers and rehabilitation strategies in functional motor disorders". **Awared**.
- UEFA Medical Research Grant, Kinematics and biomechanical research project. "Football evolution: from men to women. Do female football boots really exist? A specific kinematics and biomechanical study."
- FIFA Medical Research Grant, Kinematics and biomechanical research project: "Football evolution: from men to women. Do female football boots really exist? A specific kinematics and biomechanical study."

2022

- Contest Science Outside the box, University of Verona. Progetto: **Awarded**.
- *Brain Research Foundation Verona Onlus, Research Project* (Digital telerehabilitation on motor and non-motor outcomes, and quality of life in patients with Functional Motor Disorders: a feasibility 2-arm parallel randomized controlled clinical trial) **Awarded**
- *Call for Research and Development Fondazione Caritro* (A comparison of the effects of digital telerehabilitation on motor and non-motor symptoms, quality of life and healthcare costs in patients with Functional Motor Disorder: a randomised controlled trial), **Awarded**.
- Xsens Biomechanics Challege
- Vald Applied Research Initiative (VARI) Grant - Women's Football

Lessons/ Courses

- Lecture on movement analysis, Bachelor's Degree Course in Orthopaedic Techniques (12/2023)

- Talks at St George's University: "Wearable devices for monitoring gait and balance in movement disorders," "Wearable devices for gait and posture monitoring via telemedicine in people with movement disorders and multiple sclerosis (7-9 July 2024)

- 12-hour tutoring: Physics tutorials for the Biotechnology course, University of Verona (May - June 2024)

- Lecture as part of the 2024/2025 Advanced Course 'New multidisciplinary approaches to the diagnosis and treatment of functional neurological disorders (also known as conversion disorders)': Clinical and instrumental assessment methods for functional motor disorders (06/09/24)

- Lecture on movement analysis, Bachelor's Degree Course in Orthopaedic Techniques (11/2024)

- 20-hour tutoring programme: OFA Remedial Mathematics and Physics, Bachelor's Degree in Sports Science, University of Verona (October – November 2024)

- Lecture on youth football and grassroots activities, Introduction to Youth Football, Bachelor's Degree in Sports Science, University of Verona (May 2025)

Other work experience

Youth football coach:
- ASD Quaderni, Under-7s, 2017/18 season
- Chievo Verona Women, Under-10s, 2018/19 season

Player abroad (Iceland):
IR Reykjavik (Second Division) from May to July 2018

Representative of Chievo Verona Women for the Italian Footballers' Association from 2017 to 2023

Personal skills and competence

Native language(s)

Italian

Other(s) language (s)

English (level B2)

Volunteering experience

Children's activity leader at summer camps in Villafranca di Verona

Social skills and competences

I am a very cheerful person and have excellent skills when it comes to working in multidisciplinary teams. I also consider myself to be patient and well-suited to teaching children (I have spent years helping them with their homework), as well as teenagers and adults.

IT skills and competences	COMPUTERS: Proficiency in using the Microsoft Office suite (Word, PowerPoint, Excel), basic knowledge of Linux, programming with MATLAB, Java, RStudio, Python and Arduino; use of software/applications such as Movesense, Xsens, Pedar, FeetMe, Tracker and Visual3Db; optoelectronic systems: Vicon, BTS and Qualisys. PHOTOGRAPHY AND VIDEO: Basic Photoshop, Basic Adobe Illustrator
Other interests	Sports: Football, Cycling, Climbing, Swimming Teams/Regional/National: - Player for Chievo Verona Women (Serie A and B) from 2003 to 2023 - Player for the Verona Provincial Team in the 2008/2009 season - Player for the Veneto Regional Representative Team in the 2008/2009 season - Player for the Italian U17 National Team in the 2008/2009 season
Qualifications	Uefa B Coach License (September 2023) Team Management License (February 2023)
Driving licence	Category B driving licence – own car

I consent to the processing of my personal data in accordance with current legislation on the protection of personal data and, in particular, the European General Data Protection Regulation (GDPR) 2016/679, Legislative Decree No. 196 of 30 June 2003, and subsequent amendments and additions