



# Riccardo Borzuola

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## WORK EXPERIENCE

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09/2011 – 10/2011 Perugia, Italy

**BINDERY OPERATOR** LEGATORIA SENSI

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**Address** Perugia, Italy

04/2014 – 06/2014 Perugia, Italy

**ARCHIVE MANAGER** UNIVERSITÀ DEGLI STUDI DI PERUGIA

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**Address** perugia, Italy

01/09/2014 – 03/03/2015 Perugia, Italy

**MAIL CLERK** POSTE ITALIANE

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**Address** Perugia, Italy

01/09/2016 – 01/03/2017 Boulder, CO, United States

**TRAINEESHIP - RICERCATORE IN BIOMECCANICA APPLICATA** UNIVERSITY OF COLORADO BOULDER - DEPARTMENT OF INTEGRATIVE PHYSIOLOGY

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Research, development and design of a passive exoskeleton for rehabilitation

**Address** Boulder, CO, United States

01/05/2019 – 01/08/2019 Cardiff, United Kingdom

**ASSISTANT RESEARCHER IN UNIVERSITY** CARDIFF METROPOLITAN UNIVERSITY - CYNCOED CAMPUS

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01/10/2020 – CURRENT Roma, Italy

**UNIVERSITY LECTURER** UNIVERSITÀ DEGLI STUDI DI ROMA "NICCOLÒ CUSANO"

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Lecturer of the course of "Biomechanics" - BD in Sport Science

## EDUCATION AND TRAINING

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01/09/2005 – 10/06/2010 Perugia, Italy

**DIPLOMA DI LICEO SCIENTIFICO** Liceo Scientifico Statale "Galileo Galilei"

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**Address** Perugia, Italy

20/09/2011 – 11/03/2015 Perugia, Italy

**BACHELOR'S DEGREE IN SPORT SCIENCE** Università degli Studi di Perugia

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**Address** Perugia, Italy | **Field of study** Health and welfare | **Final grade** 110/110 e lode |

**Thesis** Sistemi di adattamento del circolo cardiaco all'attività sportiva

02/10/2015 – 15/04/2018 Köln, Germany

**MASTER'S DEGREE IN HUMAN TECHNOLOGY IN SPORTS AND MEDICINE** Deutsche Sporthochschule Köln

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**Address** Köln, Germany | **Field of study** Biomechanics of Human Movement | **Final grade** 1.5 - sehr gut/excellent |

**Thesis** The Impact of Whole-body Vibrations on the Physiological and Dynamic Response During Cycling

01/11/2018 – 27/04/2022 Roma, Italy

**PHD IN HUMAN MOVEMENT AND SPORT SCIENCES** Università degli Studi di Roma "Foro Italico"

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**Address** Piazza Lauro De Bosis, 15, Roma, Italy | **Field of study** Bioingegneria e Neuromeccanica del Movimento |

**Final grade** Eccellente | **Thesis** Neurophysiological mechanisms underlying Neuromuscular electrical stimulation

## LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C2	C2	C2	C2	C2
<b>SPANISH</b>	B2	B2	B2	B2	B2
<b>GERMAN</b>	A2	A2	A2	A2	A2
<b>FRENCH</b>	B1	B1	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## DIGITAL SKILLS

MS Office (MS Word, MS Excel, MS Outlook, MS PowerPoint, MS Access, MS OneNote, MS Visio, MS Teams) | MATLAB - MathWorks - MATLAB & Simulink | linguaggi di programmazione Python | IBM SPSS - IBM Analytics | GraphPad Prism, GraphPad Software Inc. | OTBioLab+ | GPOWER | Brain Vision Analyzer | Vicon Nexus | BTS Smart Analyzer | Adobe (Adobe Photoshop, Adobe Lightroom, Adobe Premiere, Adobe Bridge, Adobe)

## ADDITIONAL INFORMATION

### PUBLICATIONS

**Borzuola, R., Viellehner J., Potthast, W. (2018). The Impact of Whole-body Vibrations on the Physiological and Dynamic Response During Cycling. Deutsche Sporthochschule Köln publikationenn 2018.**

- 2018

**[Borzuola, R., Giombini, A., Torre, G., Campi, S., Albo, E., Bravi, M., Borrione, P., Fossati, C., & Macaluso, A. \(2020\). Central and Peripheral Neuromuscular Adaptations to Ageing. Journal of Clinical Medicine, 9\(3\), 741](#)**

- 2020

**[Borzuola, R., Labanca, L., Macaluso, A., & Laudani, L. \(2020\). Modulation of spinal excitability following neuromuscular electrical stimulation superimposed to voluntary contraction. European Journal of Applied Physiology, 120\(9\), 2105-2113.](#)**

- 2020

**[Etenzi, E., Borzuola, R., & Grabowski, A. M. \(2020\). Passive-elastic knee-ankle exoskeleton reduces the metabolic cost of walking. Journal of NeuroEngineering and Rehabilitation, 17\(1\), 104.](#)**

- 2020

**[Papalia, R., Ciuffreda, M., Albo, A. M., Fossati, C., Macaluso, A., Borzuola, R., De Vincentis, A., & Denaro, V. \(2020\). Return to Sport after Anatomic and Reverse Total Shoulder Arthroplasty in Elderly Patients: A Systematic Review and Meta-Analysis. Journal of Clinical Medicine, 9\(5\), 1576.](#)**

- 2020

**[Castaldi, G. M., Borzuola, R., Camomilla, V., Bergamini, E., Vannozzi, G., & Macaluso, A. \(2022\). Biomechanics of the Hammer Throw: Narrative Review. Frontiers in sports and active living, 4, 853536.](#)**

- 2022

**[Borzuola, R., Laudani, L., Labanca, L., & Macaluso, A. \(2022\). Superimposing neuromuscular electrical stimulation onto voluntary contractions to improve muscle strength and mass: A systematic review. European journal of sport science, 1-13. Advance online publication.](#)**

- 2022

### DRIVING LICENCE

Driving Licence: B

### CONFERENCES AND SEMINARS

12/07/2018 - 16/07/2018 - Cologne, Germany

ISBS 2018 - International Society of Biomechanics in Sports

30/01/2019 – 01/02/2019 – Roma

**IUC - BOHNES colloquium**

12/07/2020 – 14/07/2020 – Online

**International Society of Electrophysiology and Kinesiology 2020**

07/09/2021 – 09/09/2021

**71st SIF National Congress - Società Italiana di Fisiologia**

22/06/2022 – 26/06/2022 – Québec City, Canada

**International Society of Electrophysiology and Kinesiology 2022**

**PROJECTS**

01/10/2019 – 01/10/2021

**Progetto di Ateneo 2019 – Università di Roma Foro Italico:** Effects of neuromuscular electrical stimulation applied to the calf muscles on voluntary and reflex activation Write here the description

01/06/2022 – 31/08/2022

**Decathlon SportsLab - Scientific Report** Scientific Report - LITERATURE REVIEW ON THE USE OF THE JUMP ROPE AND THE ELASTIC BAND IN SCHOOL CHILDREN

10/03/2021 – CURRENT

**(Federazione Italiana Sclerosi Multipla) FISM call for Projects 2021** The effects of neuromuscular electrical stimulation on spinal excitability and spasticity in people with Multiple Sclerosis: a pilot study

10/04/2022 – CURRENT

**Progetto di Ateneo 2022 – Università di Roma Foro Italico:** Artificial Intelligence-based system to support professionals during WB-EMS intervention decision-making

14/09/2022 – CURRENT

**Bando PRIN 2022 PNRR – Research of National Interest D.D. n. 1409 - 14/09/2022** Unravelling the neural mechanisms underlying muscle weakness: the importance of early detection and treatment through a novel home-based intervention

**HONOURS AND AWARDS**

15/04/2018

**DAAD Prize - Outstanding academic achievements by international students – Deutsche Sporthochschule Köln**

**COMMUNICATION AND INTERPERSONAL SKILLS**

**Communication Skills** Excellent communication skills in English and Spanish obtained during the Erasmus project in the year 2013/2014 and subsequent years of study in Germany and the United States.

Good German language skills acquired during the Master's Degree held at the German Sport University Cologne

**VOLUNTEERING**

01/07/2005 – CURRENT Perugia

**Comitato per la Vita "Daniele Chianelli"**

**ALTRE COMPETENZE**

01/10/2018 – CURRENT

**Project Management Skills**

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Advanced skills in management, monitoring and accountability of scientific projects developed during the doctoral years at the University of Foro Italico.

01/10/2010 – CURRENT

**Competenze informatiche**

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Digital Competences:

Microsoft Office™ tools, Software for data analysis Matlab® (MathWork™, USA), Software for statistical analysis SPSS® (SPSS Inc., USA), Python (v. 3.5), GraphPad Prism (GraphPad Software Inc., USA), Software for stereophotogrammetric systems Vicon Nexus (Oxford Metrics, UK) e BTS SMART Analyzer (BTS, Italy), OtBiolab software (Turin, Italy) Software for sEMG analysis, Brain Vision Analyzer and Recorder (Brain Vision gmbh, Germany) Software for EEG recording and analysis.

**Other Skills**

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- First aid: CPR - Colorado University