

Curriculum Vitae – Scientific

Name: Riccardo Borzuola
Citizenship: Italian
Place of birth: Perugia
Date of birth: 15/09/1991
Spoken Languages: Italian, English, Spanish, German

1. EDUCATION

- **2018-2021 PhD Doctoral School in Human Movement and Sport Science / Doctor Europaeus** (University of Rome Foro Italico, Rome, Italy): Visiting PhD student at Biomechanics Laboratory of the Cardiff Metropolitan University (Cardiff, UK) for 3 months.
PhD Thesis Title: “Neurophysiological mechanisms underlying neuromuscular electrical stimulation”.
- **2015-2018 Master’s Degree in Human Technology in Sports and Medicine (grade 1.3 - Sehr Gut [Excellent])** (Deutsche Sporthochschule Köln, Köln, Germany): Internship in “Reducing metabolic cost of walking with passive elastic exoskeletons” at the Integrative Physiology department of the University of Colorado Boulder (Boulder, USA).
Winner of the **DAAD prize** 2018 for international students in German Universities.
Master’s Thesis Title: “The Impact of Whole-body Vibrations on the Physiological and Dynamic Response During Cycling”.
- **2012-2015 Bachelor’s Degree in Human and Sport Science (110/110 cum Laude)** (University of Perugia, Perugia, Italy). Winner of 7 months scholarship for carrying out a Bachelor’s Degree Thesis at the Universidad de Coruña (Coruña, Spain) in the “Facultad de Ciencias del Deporte y la Educación Física”.
Bachelor’s Thesis Title: “Sistemi di adattamento del circolo cardiaco nell’attività sportiva”.
- **2005-2010 Diploma di Maturità Scientifica (85/100)** (Liceo Scientifico Statale “Galileo Galilei”, Perugia, Italy)

2. TEACHING EXPERIENCE

- **AA 2021-2022- Università Telematica Unicusano** (Contract Lecturer in Biomechanics of Sport- 6 CFU, L22).
- **AA 2020-2021- Università Telematica Unicusano** (Contract Lecturer in Biomechanics of Sport- 6 CFU, L22).
- **2018-2022 University of Rome “Foro Italico”** (Supervision of laboratory activities with bachelor and master students)
- **AA 2018-2020 University of Rome “Foro Italico”** (Tutor of Biomechanics, 6 CFU, L22)

3. *PUBLICATIONS in International Journals*

- **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. <https://doi.org/10.3390/jcm9030741>
- **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. <https://doi.org/10.1007/s00421-020-04430-5>
- 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. <https://doi.org/10.1186/s12984-020-00719-w>
- Papalia, R., Ciuffreda, M., Albo, E., De Andreis, C., Diaz Balzani, L. A., Alifano, 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. <https://doi.org/10.3390/jcm9051576>
- 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. <https://doi.org/10.3389/fspor.2022.853536>

4. *OTHER 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.

5. *CONFERENCES*

- **Borzuola, R.**, Labanca, L., Macaluso, A., & Laudani, L. (2020). Neuromuscular electrical stimulation superimposed to voluntary movement increases Hoffmann reflex but does not affect maximal voluntary contraction. Poster, International Society of Electrophysiology and Kinesiology 2020, Online, 12-14 July 2020.
- **Borzuola, R.**, Quinzi, F., Scalia, M., Laudani, L., Di Russo, F., and Macaluso, A. (2021). Neuromuscular electrical stimulation affects spinal excitability but not cortical activity of the somatosensory cortex. Oral Presentation: 71st SIF National Congress, Online, 7-9 September 2021
- **Borzuola, R.**, Quinzi, F., Scalia, M., Di Russo, F., and Macaluso. (2022) Cortical and spinal excitability adaptations following neuromuscular electrical stimulation applied to the triceps surae. Oral Presentation: International Society of Electrophysiology and Kinesiology 2022, 22-254 June 2022, Quebec City, Canada.

6. STUDENTS SUPERVISION

- European Master “Health and Physical Activity” (HPA), University of Rome Foro Italico: Martina Parrella (aa 2020-2022 co-supervisor), Valerio Caricati (aa 2022-2022 supervisor)
- Laurea Magistrale “Attività Motorie Preventive e Adattate” (LM67), University of Rome Foro Italico: Francesco Trivilino (aa 2019-2021 co-supervisor), Jacopo Ennio Marafini (aa 2020-2022 co-supervisor), Diego Margottini (aa 2020-2022 co-supervisor)

7. INFORMATICS KNOWLEDGE AND SPOKEN LANGUAGES

- Microsoft Office™ tools, Software for data analysis Matlab® (MathWork™, USA), Software for statistical analysis SPSS® (SPSS Inc., USA), 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.
- Italian: native speaker
- English: fluent, written and spoken (C2 level):
 - English Certificate TOEFL iBT (109/120) – Florence, Italy
- Spanish: fluent, written and spoken (C1 level)
- German: intermediate, written spoken (B1 level)

8. MEMBERSHIPS

- ISBS – International Society of Biomechanics in Sport
- ISEK - International Society of Electrophysiology and Kinesiology
- SIF – Società Italiana di Fisiologia
- SISMES - Società Italiana Scienze Motorie e Sportive

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Date
10/05/2022

Niccolò Bonvole