Curriculum Vitae

1. *EDUCATION*

- **2016-2019 Ph.D in Human Movement and Sport Science (SSD: ING-INF/06)**
  (University of Rome Foro Italico, Rome, Italy)
  PhD Thesis Title: "From the lab to the field: the use of wearable inertial sensors for quantifying movement disorders".
  Ph.D Supervisor: Prof. Giuseppe Vannozzi; co-supervisor: Prof. Elena Bergamini.

  Scholarships: *Feb.2018-Oct.2018* -- Oregon Health and Science University (OHSU, Oregon, USA), Parkinson's disease Neurological Center.
  Oct.2019-Nov.2019 -- University of Stuttgart, Stuttgart, Germany, Faculty of Kinesiology

- **2013-2015 European Master in "Health and Physical Activity"- LM67int (109/110)**
  (University of Rome Foro Italico, Rome, Italy)
  Thesis Title: "The adoption of wearable sensors to assess gait deficits in Patients with Stroke".
  Thesis Supervisor: Prof. Giuseppe Vannozzi; co-supervisors: Prof. Valentina Camomilla and Prof. Elena Bergamini.

  *Abroad internships***:** Koln Sport University, Koln, Germany; "Movement Therapy for Special Populations"
  Villa Stuart Clinic, Rome, Italy; "Movement therapy in orthopedic rehabilitation"

- **2010-2013 Bachelor's degree in Human and Sport Science – LM22 (110/110 cum Laude)**
  (University of Rome Foro Italico, Rome, Italy)

- **2005-2010 Diploma di Maturità Scientifica (90/100)** (Liceo Scientifico Statale Aristotele, Rome, Italy)

2. *FELLOWSHIPS and HONORS*

- Young Scholarship Award, 20th SIAMOC Conference, Bologna (Italy), October 2019.
- Young Scholarship Award, 19th SIAMOC Conference, Florence (Italy), October 2018.
- Young Travel Award, GCMAS Conference, Indianapolis (USA), May 2018.
- Young Scholarship Award, 18th SIAMOC Conference, Turin (Italy), October 2017.
- Ph.D Scholarship, November 2016.
- Young "Torno Subito" Award (Regione Lazio), June 2016.

3. *TEACHING EXPERIENCE*

- **2023 - today University of Rome "Foro Italico", Rome, Italy**
  Professor of Biomechanics (SSD ING-INF/06)
  6 CFU, Corso di Laurea Magistrale in Attività Motoria Preventiva ed Adattata (LM67)
  5 CFU, Corso di Laurea Triennale in Scienze Motorie e Sportive (L22)
  1 CFU, Corso di Laurea Magistrale in Scienze e Tecniche dello Sport (LM68)

- **AA 2021-2022- Università Niccolò Cusano, Rome, Italy**
  Professor of Biomechanics of Sport (SSD ING-INF/06)
  6 CFU, Corso di Laurea Magistrale in Scienze e Tecniche dello Sport (LM68)

  AA 2020-2021- Università Niccolò Cusano, Rome, Italy
  Professor of Biomechanics of Sport (SSD ING-INF/06)
  5 CFU, Corso di Laurea Magistrale in Scienze e Tecniche dello Sport (LM68)

- **AA 2019/2020- Università San Raffaele, Roma, Italy**
  Contract Lecturer of Biomechanic, Master in "Biomechanics"
  2 CFU, Movement Analysis instrumentations and sport applications

4. *CHRONOLOGY OF EMPLOYMENT AND RESEARCH EXPERIENCES*

- **October 1st, 2022 – September 30th, 2025** Ricercatore a tempo determinate (RTD-a), University of Rome "Foro Italico", Italy).

- **March 1st, 2022 – September 30th, 2022** Post-Doc Fellow (University of Rome "Foro Italico", Italy); Project title: "Fall-risk and dynamic stability assessment through instrumental evaluation of frails and disabled people-FAST".

- **September 1st, 2021 – December 30th, 2023** Docente a contratto presso Università degli Studi "Nicolò Cusano".

- **December 1st, 2021-February 28th 2022** Research Scholarship (University of Rome "Foro Italico", Italy); Project title: "Wearable Assistant for VEterans in sport (WAVE Project)".

- **August 1st, 2020- July 31st 2021** Post-Doc Fellow (University of Rome "Foro Italico", Rome, Italy); Project title: "Wearable Assistant for VEterans in sport (WAVE Project)".

- **October 2019 – December 2022** IRCSS Fondazione Santa Lucia, Rome, Italy
  Tecnico di Laboratorio di Analisi del Cammino (Responsabile: Dott.ssa A. Peppe);
  (Collaborazione con "Equistasi®", Azienda di Biotecnologia, e "Euromedical", Ortopedia Sanitaria)

- **2014-2015** CONI Project "Sport di Classe": Tutor of physical education in primary school.

5. *PUBLICATIONS*

1) Bergamini E., Iosa M., ***Belluscio V.***, Morone G., Tramontano M., Vannozzi G., "Multi-sensor assessment of dynamic balance during gait in patients with subacute stroke". Journal of Biomechanics; Aug 16;61: 208-215; 2017.

2) ***Belluscio V.***, Bergamini E., Iosa M., Morone G., Tramontano M., Vannozzi G.; "The iFST: an instrumented version of the Fukuda Stepping Test for balance assessment". Gait&Posture; Feb;60: 203-208; 2018.

3) Tramontano M. Bergamini E, Iosa M, ***Belluscio V.***, Vannozzi G, Morone G.; "Vestibular rehabilitation training in patients with subacute stroke: A preliminary randomized controlled trial". NeuroRehabilitation; 43(2):247-254; 2018.

4) ***Belluscio V.***, Bergamini E., Salatino G., Marro T., Gentili P., Iosa M., Morelli D., Vannozzi G. "Dynamic balance assessment during gait in children with Down and Prader-Willi Syndromes using inertial sensors". Human Movement Science; Nov 28;63: 53-61; 2018.

5) Stuart S., ***Belluscio V.***, Quinn J., Mancini M. "Pre-frontal cortical activity during walking and turning is reliable and differentiate across young, older adults and people with Parkinson's disease". Frontiers in Neurology: Movement Disorders; May 19, 2019

6) ***Belluscio V.***, Stuart S., Bergamini E., Vannozzi G., Mancini M. "The Association Between Prefrontal Cortex Activity and Turning Behaviors in People With and Without Freezing of Gait". Neuroscience; Vol. 416; 168-176; Sept.15, 2019.

7) ***Belluscio V.***, Bergamini E., Tramontano M., Orejel Bustos A., Allevi G., Formisano R., Vannozzi G., Buzzi MG. "Gait Quality Assessment in Survivors from Severe Traumatic Brain Injury: An Instrumented Approach Based on Inertial Sensors". Sensors; Dec 2019.

8) De Bartolo D., ***Belluscio V.***, Vannozzi G.,Santucci S., Antonucci A., Morone G., Giordani G., Resta F., Marinozzi F., Bini F., Paolucci S., Iosa M. "Sensorized Assessment of Dynamic Locomotor Imagery in People with Stroke and Healthy Subjects". Sensors; Aug, 2020.

9) ***Belluscio V.***, Bergamini E., Tramontano M., Formisano R., Buzzi MG., Vannozzi G. "Does Curved Walking Sharpen Gait Disorders? An instrumented approach based on wearable inertial sensors". Sensors; Sept, 2020.

10) ***Belluscio V.***, Iosa M., Vannozzi G., Peppe A. "Auditory Cue Based on the Golden Ratio Can Improve Gait Patterns in People with Parkinson's Disease". Sensors; January 2021.

11) Rum L., Sten O., Vendrame E., ***Belluscio V.***, Camomilla V., Vannozzi G.*, Truppa L., Notarantonio M., Sciarra T., Lazich A., Mannini A., Bergamini E. "Wearable Sensors in Sports for Persons with Disability: A Systematic Review". Sensors; March 2021

12) Orejel Bustos A., ***Belluscio V.***, Camomilla V, Lucangeli L., Rizzo F., Sciarra T., Martelli F., Giacomozzi C.; "Overuse-Related Injuries of the Musculoskeletal System: Systematic Review and Quantitative Synthesis of Injuries, Locations, Risk Factors and Assessment Techniques". Sensors, April 2021.

13) ***Belluscio V.***, Orejel Bustos A., Camomilla V, Rizzo F., Sciarra T., Gabbianelli M., Guerriero F., Morsilli O., Martelli F., Giacomozzi C. "Experimental study protocol of the project MOtor function and VItamin D: Toolkit for motor performance and risk Assessment (MOVIDA)". PLosOne, July 2021.

14) ***Belluscio V.,*** Casti G., Ferrari M., Quaresima V., Sappia MS, Horschig JM, Vannozzi

G; "Modifications in prefrontal cortex oxygenation during different walking conditions: a combined fNIRS and IMUs study"; Sensors, September 2021.

15) Vendrame E., ***Belluscio V.***, Truppa L., Rum L., Lazich A., Bergamini E., Mannini A. "Performance Assessment in Archery: a Systematic Review". Journal of Sport Biomechanics; February 2022.

16) Tramontano M., ***Belluscio V.***, Bergamini E., Allevi G., De Angelis S., Verdecchia G., Formisano R., Vannozzi G., Buzzi MG. "Vestibular rehabilitation improves gait quality and activities of daily living in people with severe traumatic brain injury: a randomized clinical trial" Sensors 2022.

17) ***Belluscio V.***, Cartocci G., Terbojevich T., Di Feo P., Ferrari M., Quaresima V., Babiloni F., Vannozzi G. "Facilitating or disturbing? An explorative study to investigate the effect of auditory frequencies on cortical activity and postural sway". Frontiers in Neuroscience 2023.

18) Tramontano M, Argento O, Orejel Bustos AS, DE Angelis S, Montemurro R, Bossa M, ***Belluscio V***, Bergamini E, Vannozzi G, Nocentini U. "Cognitive-motor dual-task training improves dynamic stability during straight and curved gait in patients with multiple sclerosis: a randomized controlled trial". European Journal of Physical Rehabilitation 2024.

19) Tramontano M, Orejel Bustos AS, Montemurro R, Vasta S, Marangon G, ***Belluscio V***, Morone G, Modugno N, Buzzi MG, Formisano R, Bergamini E, Vannozzi G. "Dynamic Stability, Symmetry, and Smoothness of Gait in People with Neurological Health Conditions". Sensors 2024.

20) Vendrame E, ***Belluscio V***, Truppa L, Rum L, Lazich A, Bergamini E, Mannini A. "Performance assessment in archery: a systematic review". Sports Biomechanics 2024.

21) Tramontano M, Manzari L, Bustos ASO, De Angelis S, Montemurro R, ***Belluscio V***, Bergamini E, Vannozzi G. "Instrumental assessment of dynamic postural stability in patients with unilateral vestibular hypofunction during straight, curved, and blindfolded gait". Eur Arch Otorhinolaryngol. 2024.

22) Arcolin I, Giardini M, Tagliabue F, ***Belluscio V***, Horak F, Godi M. "Measurement Properties of the BESTest Scale in People With Neurological Conditions: A Systematic Review With Meta-Analysis". Physical Therapy 2025.

6) STUDENTS SUPERVISION

- University of Rome Foro Italico, European Master in "Health and Physical Activity" (HPA) – (LM67 int):
  Dr. Amaranta Orejel Bustos (aa 2019-2020 co-supervisor), Dr. Gabriele Casti (aa 2019-2020 co-supervisor), Dr. Cecilia Lo Zoppo (aa 2020-2021 co-supervisor), Dr. Marco De Angelis (aa 2021-2022 co-supervisor), Dr. Lorenzo Avilia (aa 2024-2025, co-supervisor).

- University of Rome Foro Italico, Corso di laurea in Attività Motorie Preventive ed Adattate (LM67):
  Dr.ssa Andree Rossi (aa 2022-2023, co-supervisor), Dr. Patrizio Manzari (aa 2023-2024, supervisor), Dr.ssa Maria Grazia Salierno (aa 2024-2025, supervisor), Dr. Luca Franchi De Cavalieri (aa 2024-2025, supervisor), Dr. Mario Germanò (aa 2024-2025, supervisor), Dr. Francesco Cembalo (aa 2024-2025, supervisor), Dr.ssa Alessandra Palumbo (aa 2024-2025, supervisor).

- Università Niccolò Cusano, Corso di Laurea in Scienza e Tecnica dello Sport – (LM68)
  Dr. Giovanni Scelzi (aa 2020-2021- supervisor), Dr. Nicola Milani (aa 2020-2021- supervisor), Dr. Angela Sterlacci (aa 2021-2022- co-supervisor), Dr. Mattia Digno (aa 2021-2022 - supervisor), Dr. Alessia Maria Dall'Olmo (aa. 2021-2022 – supervisor)

7) EDITORIAL CONTRIBUTIONS

Guest Editor: *Frontiers in Neurology, Human Neuroscience - Motor Neuroscience-* "The Brain Meets the Body: neural basis of cognitive contribution in movement in healthy and neurological populations"; Belluscio V., Tullo MG., Martino Cirrera A., and De Bartolo D. June 2022.

8) ***INFORMATIC AND LINGUISTIC KNOWLEDGES***

- 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), Software for wearable inertial sensors Motion Studio and Motion Capture (APDM Inc., Portland (OR), USA), BTS- GWalk (BTS, Italy), Captiks SRL (Italy), Software for functional near-infrared spectroscopy (Artinis, The Netherlands), Phyton basic course.

- Italian mother tongue;

- English (C1 level- reading, writing, speaking, listening):
  - English Certificate "Metodo Callan" – New York School, Roma, Italy.
  - English Certificate "English as Second Language" – University College of Caribbean, Jamaica.

9) PROJECTS AND FUNDINGS

- ***April 2023- on going:*** Principal Investigator of the project "FASTER: FAll risk Sensor-based predicTion system for neurological patients: a novel Ecological paRadigm to support the clinical decision-making process", financed by Ministry of Health (funding: 390.000 euro).

10) OTHERS

- ***October 2023- ongoing***: Member of the SIAMOC Executive Board – Head of Educational Events.

11) MEMBERSHIPS

- ISB – International Society of Biomechanics
- SIAMOC – Società Italiana di Analisi del Movimento in Clinica
- ISPGR - International Society of Posture and Gait Research
- GCMAS - Gait and Clinical Movement Analysis Society
- SIRAS – Società Italiana Riabilitazione di Alta Specializzazione
- SISMES – Società Italiana di Scienze Motorie e Sportive

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DATA
04/09/2025