

INDEX

Personal informations	pag.1
Work experience	
<i>Research area</i>	pag.1
<i>Educative area</i>	pag.2
<i>Sport area</i>	pag.2
Education and training	pag.2
Congress oral communications	pag.2
Course participations	pag.3
List of publications	
<i>In extenso articles</i>	pag.3
<i>Proceedings</i>	pag.5
Personal skills and competences	
<i>Languages</i>	pag.7
<i>Social</i>	pag.7
<i>Organisational</i>	pag.7
<i>Technical</i>	pag.7
<i>Computer and software</i>	pag.8

PERSONAL INFORMATION



First name / surname:	Gaffurini Paolo
Fiscal Code	
Address:	
Mobile:	
E-mail	
SkypeID	
Linkedin	www.linkedin.com/in/paolo-gaffurini-4a210b65
Nationality:	Italian
Date and place of birth:	28 st May 1981, Brescia, ITALY
Gender:	Male

WORK EXPERIENCE

Research Area

Occupation:	Adapted Physical Activity Specialist (Since June 2012)
Main activities:	Functional Evaluation, Adapted Physical Activity, Training and Exercise.
Name of employer:	"Domus Salutis" Private Hospital, La.Ri.N. Laboratory, Brescia, ITALY.

Occupation:	Ph.D. Student (2009 – 2012)
Main activities:	Research c/o Department of Biomed. and Biotech Sciences, Laboratory of Muscular Physiology (Brescia, ITALY).
Name of employer:	Univ. of Verona – Ph.D. School in "Translational Medicine" Ph.D. Program in "Exercise and Human Mov. Sciences".

Occupation: **Research grant (From Jan 2007 to August 2007)**
Main activities: Execution of experiments to evaluate neuromuscular and motor function to define tests to study the microgravity effects on the human body. Research project funded by ESA: "Microgravity effects on human skeletal muscle function investigated by surface EMG and Mechanomyogram".
Name of employer: Dep of Biomedicine and Biotech Sciences, Lab of Muscular Physiology (Brescia, ITALY).

Educative Area

Occupation: **Lecturer – University of Brescia (Since A.Y. 2012/13)**
Main activities: - "Adapted and Preventive Physical Activity" Course – M-EDF/01 – 90 hours of teaching
- "Sport Sciences" Course – M-EDF/01 – 96 hours of teaching
- "Oxygen Consumption and Functional Evaluation" – M-EDF/01 – 16 hours of teaching
- "Adapted Physical Activity" Course – ICAR/10. 8 hours of teaching

Sport Area

Occupation: **Collaboration with Bikeltalia.it – Bikenomist – (Since January 2017)**
Main activities: Teacher and coach at Advanced BikeFitting Courses, Cycling Training Methodology.

Occupation: **Collaboration with F.C. Internazionale Milano - (Sept 2011 - May 2014)**
Main activities: Development of a specific tool to evaluate muscular function.

EDUCATION AND TRAINING

Title of qualification awarded: **PhD in "Human Movement and Sport Science" (A.Y. 2009/2012)**
Organisation: Università degli Studi di Verona – Facoltà di Scienze Motorie
International classification: Doctor of Philosophy Degree

Title of qualification awarded: **Specialized Degree in Preventative and Adapted Motor Activity Science, with 110/110 Cum Laude defending the experimental thesis: "Energy cost and muscular recruitment during Body Weight Support gait training"**

Date: Academic Years 2003 – 2006
Name and type of organization: University of Brescia – School of Medicine and Surgery – Degree course providing education and training: in "Exercise and Sport Science".
International classification: Bachelor Degree

Title of qualification awarded: **Degree in Exercise and Sport Science, with 110/110 Cum Laude defending the experimental thesis: "System to measure contractile and oxygenation parameters in Quadriceps muscle after fatiguing contractions"**

Date: Academic Years 2003 – 2006
Name and type of organization: University of Brescia – School of Medicine and Surgery – Degree course providing education and training: in "Exercise and Sport Science".
International classification: Bachelor Degree

CONGRESS ORAL COMMUNICATIONS

Title: **"Sport and disability" (March 2023)**
Organized by: Doceo ECM; Poliortopedia - Desenzano (Italy)

Title: **"Botulinum toxin and parkinson" (February 2023)**
Organized by: Fondazione Teresa Camplani - Brescia (Italy)

- Title:** "The rehabilitation of the lower limb amputee patient (November 2022)
Organized by: Fondazione Teresa Camplani - Cremona (Italy)
- Title:** **Optimal training in cycle tourism (March 2022)** - **Organized by:** Bikenomist - Milano (Italy)
- Title:** "Biomechanic and Sports - Cyclist and handbike biomechanics" (Nov 2018)
Organized by: China Institute of Sport Sciences (CISS) and Physiomed; Beijing, (China)
- Title:** **Optimal training for cycling. (Dec 2017)** - **Organized by:** Bikeltalia, Bikenomist - Milano (Italy)
- Title:** **Interdisciplinary Teamwork with Exoskeletons Rehabilitation Protocol (Nov 2017)**
Organized by: International Conference on Robotic Exoskeletons - Arezzo (Italy)
- Title:** **Validation of a kinematic protocol for the biomechanics of handbike cycling (Sept 2017)**
Organized by: Sismes - University of Brescia (ITALY).
- Title:** **Apsun Inc Meeting: "BTS Bioengineering products: the Italian Domus Salutis experience"**
Organized by: Apsun Inc, BTS Bioengineering - Seoul, (SOUTH KOREA), Sept 2017
- Title:** **The robotic use in rehabilitation (Nov 2018); Sarcopenia and chronic diseases (May 2017); Movement analysis in neurorehabilitation process (April 2017); Multidisciplinary approach in SCI people (Nov 2016); Prosthesis prescription (March 2016); Physical exercise to prevent sarcopenia (Nov 2015 and April 2016); Energy consumption at work (May 2015); Bibliography research and communication of scientific data (Feb 2012 and May 2013); Rehabilitation solution in SCI people (Nov 2011); Disabilities and sports (Oct 2008);** **Organized by** Casa di Cura "Domus Salutis
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COURSES PARTICIPATIONS

- Title - Org. by:** Eurobench Summit (21-22 June 2022) - Hospital Los Madronos - Madrid - Spain
- Title - Org. by:** Foundations of Heart Rate Variability (June 2017) - HRVcourse.com
- Title - Org. by:** Rewalk Basic and Advanced Clinical Training (Dec 2016 - Feb 2017) - Rewalk Robotics Inc.
- Title - Org. by:** BLSA - Basic Life Support - Defibrillation (17 Oct 2014) - Teresa Camplani, Domus Salutis - Brescia.
- Title - Org. by:** Nutrition and Physical Activity for Health (June 2014) - University of Pittsburgh e./.
- Title - Org. by:** Ex. Physiology: Understanding the Athlete Within (July 2013) - Univ. of Melbourne - Australia e./.
- Title - Org. by:** Measurement systems with LabView (Apr - May 2010) - Univ. of Brescia, Engineering Faculty
- Title - Org. by:** Minibasket University Course (Apr - May 2005) - Univ. of Brescia, Sport Sciences Faculty
- Title - Org. by:** Athletic Trainer University Course (Apr - May 2005) - Univ. of Brescia, Sport Sciences Faculty
- Title - Org. by:** Youth football instructor (Oct - Dec 2004) - Univ. of Brescia, Sport Sciences Faculty
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LIST OF PUBLICATIONS

In extenso articles

17. Cogliati M, Cudicio A, Toscani F, Gaffurini P, Bissolotti LM, Orizio C, Negro F.

Normalized maximal rate of torque development during voluntary and stimulated static contraction in human tibialis anterior: Influence of age.

Exp Gerontol. 2020 Sep;138:110999. doi: 10.1016/j.exger.2020.110999. Epub 2020 Jun 6.

16. Cogliati M, Cudicio A, Negro F, **Gaffurini P**, Bissolotti LM, Orizio C.
Influence of age on motor control accuracy during static ramp contractions.
Exp Brain Res. 2019 Aug;237(8):1889-1897. doi: 10.1007/s00221-019-05524-z. Epub 2019 May 16.
15. M.Gobbo, S.Lazzarini, L.Vacchi, **P.Gaffurini**, L.Bissolotti, A.Padovani, M.Filosto
Exercise Combined with Electrotherapy Enhances Motor Function in an Adolescent with SMA Type III
Case Reports in Neurological Medicine Volume 2019, Article ID 4839793, <https://doi.org/10.1155/2019/4839793>
14. Passeri E, Martinelli M, Gatterri V, Passeri C, Cigolini L, Chiari S, Zenorini A, **Gaffurini P**, Bernardi S, Poli I, Bissolotti L.
Standard and water rehabilitation: An analysis of over 14 years' experience in patients with hemophilia or other clotting factor disorders after orthopedic surgery
Haemophilia. 2019 Jul;25(4):699-707. doi: 10.1111/hae.13748. Epub 2019 Apr 17
13. Cogliati M, Cudicio A, Negro F, **Gaffurini P**, Bissolotti LM, Orizio C.
Influence of age on motor control accuracy during static ramp contractions.
Exp Brain Res. 2019 May 16. doi: 10.1007/s00221-019-05524-z. [Epub ahead of print]
12. Azizpour G, Lancini M, Incerti G, **Gaffurini P**, Legnani G.
An Experimental Method to Estimate Upper Limbs Inertial Parameters During Handcycling.
J Appl Biomech. 2018 Jun 1;34(3):175-183. doi: 10.1123/jab.2017-0136. Epub 2018 Jun 12.
11. Gobbo M, **Gaffurini P**, Villafañe JH, Lazzarini S, Vacchi L, Orizio C, Negrini S, Bissolotti L.
Hand Passive Mobilization Performed With Robotic Assistance: Acute Effects On Upper Limb Perfusion And Spasticity In Stroke Survivors
BioMed Research International, Volume 2017 (2017), Article ID 2796815, 6 pages
10. Orizio C, Cogliati M, Bissolotti L, **Gaffurini P**, Marcolin G, Paoli A
Time color map and histogram of electromyography (EMG) sample amplitudes: possible tools for global electromyogram analysis by images
Sport Sci Health (2018) 14: 83.
9. G. Azizpour , A. Ousdad, G. Legnani, G. Incerti, M. Lancini, **P. Gaffurini**
Dynamic Analysis of Handcycling: Mathematical Modelling and Experimental Tests
Advances in Italian Mechanism Science. Volume 47 of the series Mechanisms and Machine Science pp 33-40. Date: 05 November 2016
8. Bissolotti L, Villafañe JH, **Gaffurini P**, Orizio C, Valdes K, Negrini S.
Changes in skeletal muscle perfusion and spasticity in patients with poststroke hemiparesis treated by robotic assistance (Gloreha) of the hand.
J Phys Ther Sci. 2016 Mar;28(3):769-73. doi: 10.1589/jpts.28.769.
7. Zerbini L, Fabre N, Grainer A, Fanchini M, **Gaffurini P**, Azzalin A, Schena F.
VO2p, HR and HHb kinetics in young and older adults during cycling in acute hypoxia.
Publications on Appl Physiol Nutr Metab. 2013 Nov;38(11):1179.
6. **Gaffurini P**, Bissolotti L, Calza S, Calabretto C, Orizio C, Gobbo M.
Energy metabolism during activity-promoting video games in subjects with SCI: evidences for health promotion
Publications on Eur J Phys Rehabil Med. 2013 Feb;49(1):23-9. Epub 2013 Feb 1.

5. **Gaffurini P**, Neviani C, Orizio C, Gobbo M.
Oxygen supply/uptake mismatch during incremental stimulation of the human tibialis anterior.
Publications on Sport Sci Health (2012) 7:65-70.
4. Gobbo M, **Gaffurini P**, Bissolotti L, Esposito F, Orizio C.
Transcutaneous neuromuscular electrical stimulation: influence of electrode positioning and stimulus amplitude settings on muscle response.
Publications on Eur J Appl Physiol. 2011 Oct;111(10):2451-9. Epub 2011 Jun 30.
3. Bissolotti L., Calabretto C., Ometto M., **Gaffurini P.**, Gobbo M., Legnani G., Orizio C.
La valutazione ergonomica dell'atleta disabile praticante handbike.
Publications on MR Giornale Italiano di Medicina Riabilitativa 2011 Febbraio;25(1):45-50.
2. Orizio C, Baruzzi E, **Gaffurini P**, Diemont B, Gobbo M.
Electromyogram and force fluctuation during different linearly varying isometric motor tasks.
Publications on J Electromyogr Kinesiol. 2010 Aug;20(4):732-41. Epub 2010 Apr 14.
1. C.Orizio, A.Corsini, **P.Gaffurini**, M.Gobbo.
Influenza di un pasto di carboidrati sulla prestazione motoria di sciatori.
Publications on Medicina dello Sport - Volume 62 - 49-56 suppl.1 al n.1 - marzo 2009.
- Proceedings
23. **P.Gaffurini**, M.Cogliati, L.Bissolotti
Kinematic analysis and reference database helps wheelchair prescription in sci people
Congresso Sismes, Brescia, ITALY, 29 Settembre - 1 Ottobre 2017
22. M Gobbo, M Lo, D Putrino, C Orizio, L Bissolotti, **P Gaffurini**
Active video game technology increases energy expenditure of stationary cycling performed by stroke patients.
9th World Congress for NeuroRehabilitation, 10 - 13 May, Philadelphia 2016
21. M Gobbo, S Lazzarini, **P Gaffurini**, L Bissolotti, A Padovani, M Filosto
Electrotherapy improves motor function In an adolescent with type III spinal muscular atrophy. A case report
9th World Congress for NeuroRehabilitation, 10 - 13 May, Philadelphia 2016
20. M Gobbo, **P Gaffurini**, C Orizio, S Negrini, L Bissolotti
Robot-assisted passive motion positively affects UL perfusion and spasticity in stroke survivors. Before-after study
9th World Congress for NeuroRehabilitation, 10 - 13 May, Philadelphia 2016
19. **Gaffurini P**, Bissolotti L.
Hey Doc... La mia postura in carrozzina è ok? L'analisi cinematica come supporto alla prescrizione della carrozzina.
XVI Congresso SIAMOC. Padova ITALY, 30th September - 3th October 2015.
18. **Gaffurini P**, Bissolotti L.
Novel functional kinematic analysis for clinical evaluation of the upper limb reaching task in subjects with neurological disorders: the 5P test.
I Clinical Movement Analysis World Conference. Rome ITALY, 29th September - 4th October 2014.
17. Gobbo M, Bissolotti L, Svanera D, **Gaffurini P**, Orizio C.
Electrical stimulation applied to paretic tibialis anterior: influence of electrode positioning on muscle response.
DEMOVE Symposium. Göttingen GERMANY, 22th - 23th October 2013.

16. **Gaffurini P**, Gobbo M, Neviani C, Orizio C.
Local perfusion and oxygenation changes during tibialis anterior neuromuscular electrical stimulation.
III Congresso Nazionale SISMES. Verona, Italy, 29th September - 1 October 2011.
15. Ometto M, **Gaffurini P**, Bissolotti L, Legnani G
Exerted forces during handcycling. Experimental results.
XX Congresso dell'Associazione Italiana di Meccanica Teorica e Applicata. Bologna, Italy, 12th-15th September 2011.
14. Bissolotti L, Bonazza P., Calabretto C., Gobbo M., Lussignoli D., Baruzzi E., **Gaffurini P.**, Orizio C.
The McKenzie treatment of low back pain in non professional athletes: a functional evaluation of results on isokinetic dynamometer.
XIX International Congress of Sport Rehabilitation and Traumatology. Bologna, Italy, April 10th - 11th 2010.
13. Bissolotti L, Ometto M., Calabretto C., Gobbo M., Lussignoli D., Baruzzi E., **Gaffurini P.**, Orizio C.
Functional and kinematic evaluation of trunk and neck movements by a new and compact optoelectronic unit.
XIX International Congress of Sport Rehabilitation and Traumatology. Bologna, Italy, April 10th - 11th 2010.
12. Bissolotti L, Ometto M., Legnani G., Gobbo M., Calabretto C., Lussignoli D., Baruzzi E., **Gaffurini P.**, Orizio C.
Functional and kinematic evaluation of athletes with spinal pain syndromes by a new two optoelectronic cameras.
XXXVI Simfer - ESPRM. Venice, Italy, May 23th - 27th 2010.
11. Chiari S., Bissolotti L., Calabretto C., Gobbo M., Baruzzi E., **Gaffurini P.**, Orizio C.
Gait training on Lokohelp after stroke: analysis of the benefits in chronic patients.
XXXVI Simfer - ESPRM. Venice, Italy, May 23th - 27th 2010.
10. Gobbo M., Bissolotti L., **Gaffurini P.**, Mannino A., Orizio C.
Influence of different muscle percutaneous electrical stimulation procedures on the evoked muscular activity.
XVIII Congress of the Internat. Society of Electrophysiology and Kinesiology. Aalborg, Denmark, June 16th - 19th 2010.
9. Orizio C., Solomonow M., **Gaffurini P.**, Lussignoli D., Gobbo M.
Human muscle-tendon unit frequency response with different tendon transmitting properties.
XVIII Congress of the Internat. Society of Electrophysiology and Kinesiology. Aalborg, Denmark, June 16th - 19th 2010.
8. Sani V. , Piacentini R., Gobbo M., **Gaffurini P.**, Orizio C, Bissolotti L.
Validation of a system to study the effects of kinesiotaping on the motor control of TA in a hemiparetic patient.
The International Symposium of Kinesiotaping 2010 : " THE RESEARCH. Rome, Italy, June 19th - 20th 2010.
7. Gobbo M., Bissolotti L., Calabretto C., **Gaffurini P.**, Sani V., Orizio C.
Evaluation of motor recovery of the first interosseous dorsal in hemiparetic patients during rehabilitation treatment
Neuroriabilitazione Robotica dell'arto superiore. Genova, Italy, December 14th-15th 2009.
6. Gobbo M., **Gaffurini P.**, Lussignoli D., Orizio C.
Changes in contractile properties induced by post tetanic potentiation of two different human leg muscles.
Proceedings of 60th National Congress of the Italian Physiological Society. Siena, Italy, September 23th-25th 2009.
5. Ometto M., Gobbo M., Bissolotti L., Gaffurini P., Legnani G.
Instrumentation of a handbike for biomechanical measurements.
Proceedings of the XIX Congress AIMETA (Associazione Italiana di Meccanica Teorica e Applicata). Ancona, Italy, September 14th-17th 2009.

4. **Gaffurini, P.**, Gobbo, M., Bissolotti, I., Calabretto, C., Orizio, C.

Influence of workload and posture on handcycling efficiency.

Proceedings of the 14th Annual Congress of the ECSS - Abstr.-ID: 1023. Oslo, Norway, June 24th-27th 2009.

3. Bissolotti, L., Gobbo, M., **Gaffurini, P.**, Orizio, C., Calabretto, C., Passeri, W.

Comportamento dei parametri elettromiografici e di ossigenazione tissutale durante contrazione isometrica affaticante del muscolo erettore spinale in soggetti lombalgici.

Proceedings of the "Rachide & Riabilitazione - Quinto Evidence-Based Meeting ISICO". Milano, Italy, March 27th 2009.

2. M. Gobbo, **P. Gaffurini**, B. Diemont, C. Orizio.

Force and Mechanomyogram post-tetanic potentiation in human tibialis anterior.

Proc. of the XVII Congress of the ISEK Niagara Falls, Ontario, Canada, June 18th-21th 2008.

1. Orizio C., Baruzzi E., Maruggio V., **Gaffurini P.**, Diemont B., Gobbo M.

Muscle activity during linearly varying isometric contraction: electromyographical aspects.

Proc. of the XVII Congress of the ISEK. Niagara Falls, Ontario, Canada, June 18th-21th 2008.

PERSONAL SKILLS AND COMPETENCES

Natural language:

Italian

Other languages

Language:

English

Understanding:

Listening:

B2

Reading:

B2

Speaking:

Spoken interaction:

B2

Spoken production:

B2

Writing:

B1

Language:

Spanish

Understanding:

Listening:

A1

Reading:

A1

Speaking:

Spoken interaction:

B1

Spoken production:

A2

Writing:

A2

Social skills and competences

Scientific Area:

Ability to work and cooperate in a group, learned during a research project.

Sport Area:

Ability to work with children, learned during movement educational training.

Organizational skills and competences

Scientific Area:

Ability to cooperate and plan research projects in the biomedical area.

Sport Area:

Able to plan and define, projects lessons in sport and education. Able to plan and define physical training programs for individual athletes or sports teams.

Technical skills and competences

Scientific Area:

Ability to operate with biomedical devices, surface EMG, surface MMG, in-vivo noninvasive measurements of tissue oxygenation by Near Infrared Spectroscopy, Metabolic Consumption and breath parameters measurement device. Ability to operate with NMS stimulation and Movement Analysis System with passive markers placement. Past master in Rewalk gait training rehabilitation for Spinal Cord Injury patients.

Sport Area:

Ability in training Team Sport Group, particularly in Soccer, Minibasket and Basketball Area.

Computer skills and competences

Habitual use of Windows OS, and Linux open-source OS. Very good knowledge of Office and Openoffice suite and all of the common daily use software. Good knowledge of LabView language. Good knowledge of data and statistical analysis software SigmaPlot or MatLab. Very good knowledge of Autocad and Autodesk Inventor 3D. Quite good knowledge of the most common photo editing software. Very good knowledge in web research.

Brescia, April 2023
Paolo Gaffurini