


PERSONAL INFORMATION

Giuseppe Vannozi



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Sex Male | Date of birth 16/06/1973 | Nationality Italian

WORK EXPERIENCE

- October 2007 – present **Assistant Professor in Bioengineering**
 Teaching and research
 University of Rome “Foro Italico”, Rome (Italy)
- 2013 – present **Faculty member of the Doctoral program in Bioengineering**
 Teaching and research supervision
 University of Bologna “Alma Mater”
- 2002 – 2007 **Post-doc**
 Research, teaching assistantship
 University of Rome “Foro Italico”, Rome (Italy)
- 2000 – 2001 **Research Assistant**
 Research
 ARTS-Lab, Scuola Superiore S.Anna, Pisa (IT)

EDUCATION AND TRAINING

- 2001 – 2004 **Philosophy Doctorate**
 University of Bologna “Alma Mater” (Italy)
 Bioengineering
- 1993 – 1999 **Master of Science**
 University of Rome “La Sapienza”, Roma (Italy)
 Computer Engineering

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING	
	Listening	Reading	Spoken interaction	Spoken production		
English	C1	C2	C1	C1		C1
French	B2	C1	B2	C1		B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
 Common European Framework of Reference for Languages

Computer skills Microsoft Office™ tools, Matlab® (MathWork™, USA), SPSS® (SPSS Inc., USA), Vicon Nexus (Oxford Metrics, UK), Vicon Workstation (Oxford Metrics, UK), BTS SMART Analyzer (BTS, Italy), Xsens MT Manager (Xsens, The Netherlands), Motion Studio (APDM Inc., Portland (OR), USA)

ADDITIONAL INFORMATION

Editorial activities Editorial board member of “*Advances in Biomechanics and Applications*” and of “*Theories & Application, the International Edition (TAIE)*”

Reviewer for the following ISI journals:

Artificial Intelligence in Medicine; Biomedical Signal Processing and Control; Clinical Biomechanics; Computer Methods in Biomechanics and Biomedical Engineering; IEEE Transactions on Biomedical Engineering, Journal of Aging and Physical Activity, Journal of Biomechanics, Journal of Electromyography and Kinesiology, Journal of Medical Engineering, Journal of Rehabilitation Research & Development, Journal of Science and Medicine in Sport, Journal of Zhejiang Univ-Science A (Appl Phys & Eng), Medical Engineering and Physics, PlosOne.

Evaluation activities Reviewer for the *MIUR* (Ministry for University and Research) – PRIN program.
Reviewer for the *Fund for Scientific Research* – FNRS (Belgium) - “Call Grants & Fellowships” program.
Reviewer for the *FiLaS*.
Member of the evaluation committee for the “GNB National Awards for the best Master and PhD theses in Bioengineering”

Organisation of Scientific Events

- 2012 - IDAMAP 2012 Workshop, Pavia, November 22th – Program Committee.
- 2012 – III GNB National Congress – Roma, June 27th – 29th – Organizing Committee.
- 2009 – X SIAMOC Congress - Alghero (SS), October 1st – 3rd – Organizing Committee.
- 2009 – I GNB Workshop on “Data Mining e Knowledge Discovery in Bioingegneria” - Pavia, February 20th – Program Committee .

Funded Research Projects

- 2013 – University Research Grant: “*DeMoS - Development of fundamental motor skills: instrumental assessment methods and association with high-level cognitive functions in childhood*” – € 60.000. Role: coordinator.
- 2011 – Departmental Research Grant: “*Methodologies for the extraction of information for assessing motor development and sport performance*” - € 6.030. Role: coordinator.
- 2007 – Departmental Research Grant: “*Methodologies for the biomechanical assessment of the sports shoe*” - € 10.600. Role: coordinator.

Participation in Research Projects (selection)

- MISE-ICE-CRUI (2010). *SIVAM - Wearable Sensors for Motor Ability Evaluation* (coordinator Prof. A. Cappozzo).
- Protocol REGIONE LAZIO – CRUL (2009). *System for remote monitoring of motor functioning in persons at risk or in the elderly.* (coordinator Prof. A. Cappozzo).
- Italian Ministry of University and Research (PRIN 2007). *Evaluation of mobility and of its variation related to age and to physical activity level in adult subjects living in urban contexts by associating instrumental mobility monitoring in daily activities with laboratory testing.* (coordinator Prof. U. Della Croce).
- Galileo program funded by the UIF (2007), Italy-France integrated actions. *Biomechanical evaluation of a new instrumented shoe for clinical and sports use.* (Italian coordinator: Prof. A. Cappozzo).
- Italian Ministry for University and Research (PRIN 2002 - 2004). *Morphologic and mechanical information integration for the description of the in-vivo articular function of the human knee.* (coordinator Prof. A. Cappello).
- Grant funded by the Ministry of Health and cofunded by the ISPESL (2004). *Influence of motor and workers activity in the manifestation and progression of subclinical muscular pathologies based on genetics.* (coordinator Dr. V.Molinaro)
- Grant funded by the MIUR (Italian Ministry for University and Research), 2002. Evaluation of postural and locomotor ability in man for clinical application (coordinator Prof. A. Cappozzo).
- Grant funded by the CNR (Italian National Research Council) - 2000 "A web-based system for the operators of the rehabilitation of the locomotor apparatus" (coordinator Prof. A. Starita).
- Grant funded by the European Community - ESPRIT LTR #26322 – “GRIP: an Integrated System for the Neuroelectric Control of Grasp in Disabled Person” (coordinator Prof. Paolo Dario)
- Grant funded by ASI (Italian Agency of Space): “HPA, Hand Posture Analyzer” (coordinator Prof. P.Dario)

Research Internships

February 2007: visiting researcher, Laboratoire d’analyse des contraintes mécaniques, Université de Reims (FR). Funded by Galileo project (UIF, 2006). Local reference: Prof. R. Tairar.
 January-June 2003: visiting researcher, Institute of Sports Science and Clinical Biomechanics, Southern University of Denmark (DK). Internal grant. Local reference: Prof. P. Caserotti.

Awards and invited lectures

- Invited Keynote lecture for the 6th Asian-Pacific Conference on Technology in Sport (ASPCT 2013), Hong Kong, Sept. 2013. Title: “*Wearable sensors for motor ability assessment: clinical, motor development and sports applications*”
- “Siamoc-Elsevier” award for the best methodological paper - VII SIAMOC conference (2006).

Offices held in scientific societies

- SIAMOC – Italian Society for Clinical Movement Analysis (member of the Executive Council)
- ESB – European Society of Biomechanics (ordinary member)
- GNB – National Group of Bioengineering (member)

Publications in Refereed Journals

- Micera S, Vannozi G, Sabatini AM, Dario P, (2001). *Improving Detection of Muscle Activation Intervals*. **IEEE Eng Med Biol**, 20(6): 38-46.
- Vannozi G, Della Croce U, Starita A, Benvenuti F, Cappozzo A, (2004). *Knowledge discovery in databases of biomechanical variables: application to the sit to stand motor task*. **J NeuroEng Rehabil**, 1:7.
- Cappozzo A, Camomilla V, Della Croce U, Mazzà C, Quagliarella L, Vannozi G, Zok M, (2005). *Musculo-Skeletal System Modelling in the Evaluation of the Motor Disability*. **Theoretical Issues in Ergonomics Science**, 6(3-4): 319-324.
- Camomilla V, Cereatti A, Vannozi G, Cappozzo A, (2006). *An optimized protocol for the hip joint centre determination using the functional method*. **Journal of Biomechanics**, 39(6): 1096-1106.
- Cereatti A, Camomilla V, Vannozi G, Cappozzo A, (2007). *Propagation of the hip joint centre location error to the estimate of femur vs pelvis orientation using a constrained or an unconstrained approach*. **Journal of Biomechanics**, 40(6): 1228-1234.
- Donati M, Camomilla V, Vannozi G, Cappozzo A, (2007). *Enhanced anatomical calibration in human movement analysis*. **Gait and Posture**, 26(2): 179-185.
- Vannozi G, Cereatti A, Mazzà C, Benvenuti F, Della Croce U, (2007). *Extraction of information on elder motor ability from clinical and biomechanical data through data mining*. **Comp Meth Progr Biomed**, 88(1): 85-94.
- Vannozi G, Pecoraro F, Caserotti P, Cappozzo A, (2008). *A Neurofuzzy inference system based on biomechanical features for the evaluation of the effects of the physical training*. **Comp Meth Biomech Biomed Eng**, 11(1), 11-17.
- Donati M, Camomilla V, Vannozi G, Cappozzo A, (2008). *Anatomical frame identification and reconstruction for repeatable lower limb joint kinematics estimates*. **Journal of Biomechanics**, 41(10): 2219-2226.
- Masci I, Vannozi G, Gizzi L., Bellotti P, Felici F, (2010). *Neuromechanical evidence of improved neuromuscular control around knee joint in volleyball players*. **Eur J Appl Physiol**, 108(3): 443-50.
- Vannozi G, Conforto S, D'Alessio T, (2010). *Automatic detection of surface EMG activation timing using a Wavelet Transform based method*. **J Electromyogr Kinesiol**, 20(4): 767-772.
- Masci I, Vannozi G, Getchell N, Cappozzo A, (2012). *Assessing hopping developmental level in childhood using wearable inertial sensor devices*. **Motor Control**, 16(3):317-28.
- Masci I, Vannozi G, Bergamini E, Getchell N, Pesce C, Cappozzo A, (2013). *Assessing locomotor skills development in childhood using wearable inertial sensor devices: the running paradigm*. **Gait and Posture**, 37(4):570-574.
- Iannarilli F, Vannozi G, Iosa M, Pesce C, Capranica L, (2013). *Effects of task complexity on rhythmic reproduction performance in adults*. **Human Movement Science**, 32: 203-213.
- Pesce C, Crova C, Marchetti R, Struzzolino I, Masci I, Vannozi G, Forte R, (2013). *Searching for cognitively optimal challenge point in physical activity for children with typical and atypical motor development*. **Mental Health and Physical Activity**, 6 :172-180.
- Laudani L, Vannozi G, Sawacha Z, Cereatti A, Della Croce U, Macaluso A, (2013). *Association between physical inactivity and physiological factors underlying mobility in young, middle-aged and older individuals of both genders living in a city district*. **PLoS ONE** 8(9):e74227.
- Crova C, Struzzolino I, Marchetti R, Masci I, Vannozi G, Forte R, Pesce C, (2014). *Cognitively challenging physical activity and executive function in overweight children*. **J Sport Sci**, 32(3):201-11. doi: 10.1080/02640414.2013.828849.
- Della Mattia F, Vannozi G, (2014). "Cadenza di pedalata e prestazione - la cadenza di pedalata ottimale: review e linee guida". **SdS – Rivista di cultura sportiva** (in press)
- Mair J, Laudani L, Vannozi G, De Vito G, Boreham C, Macaluso A, (2014). *Neuromechanics of repeated stepping with external loading in young and older women*. **Eur J Appl Physiol**, [Epub ahead of print]. doi: 10.1007/s00421-014-2826-9.

Book chapters

- Cappozzo A, Vannozi G, (2003). Descrizione del movimento dello scheletro umano. In: **Biomeccanica della Postura e del Movimento**. Cappello, Cappozzo, di Prampero eds. Patron, ISBN 8855527177: pp. 63-77.
- Conforto S, Schmid M, Zaccagna P, Vannozi G, D'Alessio T, (2003): "MA-MYO: a software proposal for EMG signal processing and standardization in movement analysis" In: **Computer Methods in Biomechanics and Biomedical Eng.** – 4. Middleton, Shrive and Jones eds. University of Wales, College of Medicine, ISBN 1-903847-09-5: pp. 1-8.
- Cappozzo A, Camomilla V, Della Croce U, Mazzà C, Vannozi G, (2009). Quantitative motor function evaluation: the VAMA project experience. **Frontiers in Artificial Intelligence and Applications** 196(1), pp. 187-195. doi: 10.3233/978-1-60750-010-0-187.
- Vannozi G, Donati M, Gatta G, Cappozzo A, (2010). Analysis of swim turning, underwater gliding and stroke resumption phases in top division swimmers using a wearable inertial sensor device. In: **Biomechanics and Medicine in Swimming XI**. Kjendlie, Stallman and Cabri eds, Oslo (NW), ISBN 978-82-502-0439-3, p.178-80.
- Cappozzo A, Camomilla V, Cereatti A, Mazzà C, Vannozi G. Movement Analysis. In: **Grieve's Modern Musculoskeletal Physiotherapy**, 4E (accepted)

Long Papers in Conference Proceedings

- Conforto S, D'Alessio T, Camussi R, Ragni R, Vannozi G, (2000): "Detection of Noise Emission Sources in a low speed wind tunnel", in Proc. ICSV 7^o International Congress on Sound and Vibration, Garmisch P. (Germany) 4-7 luglio 2000, ISBN 0-912053-69-0-00: pp. 3527-34
- Conforto S, D'Alessio T, Vannozi G, (2000) – "Detection of Discontinuities in Vibration Signals from Mechanical Systems". In Proceedings of IX SEM International Conference on Theoretical Experimental and Computational Mechanics, Orlando, Florida (USA), 84: pp. 179-182.
- Vannozi G, Cappozzo A, Della Croce U, Starita A, Benvenuti F, (2004): "Clinical data mining: association rules for parameters pruning and knowledge discovery". In Proc of the IFMBE, 6, 283, ISBN 88-7780-308-8: pp. 1-4.
- Vannozi G, Della Croce U, A. Cappozzo, (2004): "Extraction of information from clinical and biomechanical parameters through data mining". In Proc. of 1st International Working Conference IT and Sport, Cologne (Germany) 15-17 settembre 2004: pp. 17-21.
- V. Camomilla, A. Cereatti, M. Donati, Vannozi G, A. Cappozzo, (2004): "Critical issues and future developments in human movement analysis". In Proc. of XIVth International Conference on Mechanics in Medicine and Biology, Bologna (Italia), Sept. 16th-18th, ISBN 88-901675-0-5: pp. 6-8.
- R.Taiar, A. M. Rebay, Vannozi G, G. Sanna, A. Cappozzo, (2008): "Evolution of the in-shoe temperature during walking and running". In Proc. Biomed '08, Andreas Hierlemann ed., ACTA Press Anaheim, CA, USA, ISBN 978-0-88986-722-2: pp. 130-33.
- Sawacha Z, Laudani L, Macaluso A, Vannozi G, (2012). Identifying the association between physical activity levels and physiological factors underlying mobility: a descriptive data mining approach. IDAMAP 2012 workshop, Pavia (IT), 22 Novembre 2012, 17-21

Refereed short abstracts (selection)

- Camomilla V, Vannozi G, Cereatti A, Cappozzo A, (2007). Improved regression modeling for hip joint centre determination. Book of abstracts of the 6th IACSS Symposium, Calgary (Can), 70-71.
- Vannozi G, Sanna G, Taiar R, Cappozzo A (2008). Sport shoe stability and flexibility assessment. 16th Conference of the European Society of Biomechanics, J. Biomech 41(S1): S424.
- Laudani L, Vannozi G, Kose A, Macaluso A, (2010). Habitual walking patterns are associated to walking economy in young and older individuals living in a city district. II SISMES congress. The Journal of Sports Medicine and Physical Fitness 50S: 37.
- Gatta G, Cortesi M, Zok M, Lanotte N, Vannozi G, (2010). Comparison between two different types of instruments: an encoder and an inertial sensor device. Book of Abstracts of Biomechanics and Medicine in Swimming XI, Oslo (NW), 16th-19th June.
- Iannarilli F, Vannozi G, Capranica L, (2011). Rhythmic Ability and Movement Complexity in Gymnasts and sedentary individuals. III SISMES Congress.
- Summa A, Vannozi G, Cappozzo A, (2013). Upper body accelerations during gait in typically developing children. XIV SIAMOC Congress, Pisa (IT).
- Summa A, Vannozi G, et al., (2013). Upper body accelerations during gait in typically developing children and neurologic patients. 6th APCST Congress, Hong Kong, 17.
- Masci I, Vannozi G, et al., (2013). Quantitative assessment of horizontal jump development in childhood using wearable inertial sensor devices. 6th APCST Congress, Hong Kong, 16.
- Vannozi G, Ervini S, Gatta G, Cappozzo A, (2013). Front crawl turning assessment using a wearable 3D inertial measurement unit: parameters validation and application to technique learning. 6th APCST Congress, Hong Kong, 14.