VITTORIO SANGUINETI
(omissis)

CURRENT POSITION
Full Professor (Professore I Fascia) of Bioengineering, University of Genoa

CAREER
2019- Full Professor (Professore I Fascia) of Bioengineering, University of Genoa, Italy

2009-2012 Team Leader, Fondazione Istituto Italiano di Tecnologia, Genoa. Research on the use of robots and BCI to facilitate motor skill learning and neuromotor rehabilitation. Scientific coordinator of a EU-funded project (HUMOUR, see below) involving a joint research team (University of Genoa, IIT).

2005-2019 Associate Professor (Professore II Fascia) of Bioengineering, University of Genoa, Italy

1999-2000 Visiting Scholar, Dept Physiology, Northwestern University Medical School, Chicago, USA.

1998-2005 Assistant Professor (Ricercatore Universitario) of Bioengineering, University of Genoa, Italy

EDUCATION AND TRAINING
1997-1998 Post-doctoral Fellow, Dept Physiology, Northwestern University Medical School, Chicago, USA.

1996 Post-doctoral Fellow, Dept Psychology, McGill University, Montréal, Canada

1995-1996 Post-doctoral Fellow, Institut de la Communication Parlée, Institut National Polytechnique de Grenoble, France.

1995-1997 Post-doctoral Fellow, University of Genoa, Italy

1994 PhD in Robotics, University of Genoa.

1989 Master's degree (Laurea) in Electronic Engineering (summa cum laude), University of Genoa.

RESEARCH ACTIVITY
Neural control of movements, Interaction between perception and action; Interactive technologies for assessment of sensorimotor functions and for cognitive and neuromotor rehabilitation; Robotics for rehabilitation; Computational and experimental studies on joint action.

MANAGEMENT/ORGANIZATION POSITIONS
2022-2023 Member, Technical-Scientific Committee. National Center for Computational & Technological Medicine (Progetto Bandiera Erzelli), Liguria Region.

2019- Head (coordinator) Degree program in Biomedical Engineering/Bioengineering, University of Genoa, Italy

2018-2024 Board Member, Polytechnic School, University of Genoa, Italy

2017-2021 Head of Technical-Scientific Committee, Polo Ligure delle Scienze della Vita (Regional R&I Hub for the Life Sciences), Liguria Region, Italy. Promotion, assessment of technology transfer and networking activities in the field of Health and Life Sciences.

2017-2021 Coordinator, University of Genoa's committee (2017-2021) for Life Sciences (Commissione di Ateneo per le Scienze della Vita).

2015- Expert Evaluator/Reviewer, European Commission. Evaluation of Horizon 2020 grant applications (SC1: Health, demographic change and well-being). Review of ongoing projects.

2011-2015 Member of Management Committee for Italy, COST Action TD1006: European Network on Robotics for NeuroRehabilitation, Italian Representative in the Management Committee, Co-Leader of Working Group 3 on 'Theoretical Models of Motor Recovery'.

2010-2024 International Measurement Confederation (IMEKO), Technical Committee TC18 'Measurement of Human Functions', Vice-Chairman.

2005-2010 Head (Coordinator), PhD program in Bioengineering, Doctoral School on Sciences and Technologies for Information and Knowledge, University of Genoa, Italy

ACADEMIC TEACHING
Bachelor program in Biomedical Engineering, University of Genoa
    1999-2001, 2003-2009 Medical Informatics
    2001-2002 Information Systems and Telemedicine
    2005-2009 Data and Signal Processing 1
    2009-2010 Biomedical Data and Signal Processing 3
    2009-2013 Biomedical Data and Signal Processing 2
    2009-2013 Control and Models of Biological Systems

Bachelor Program in Biotechnology, University of Genoa
    2003-2005 Informatics

Bachelor Program in Motor Sciences, University of Genoa
    2015-2018 Physics and Biomechanics

Master program in Bioengineering, University of Genoa
    2003-2004 Operating Systems and Real-time Electronic Systems
    2002-2008 Rehabilitation Engineering and Prosthetic Control Techniques
    2005-2008 Data and Signal Processing
    2010-2013 Control, Learning and Neuromotor rehabilitation
    2010-2013 Biorobotics and Neurorehabilitation Lab
    2011-2013 Analysis and Models of Biomedical Data and Signals
    2012-2014 Movement Biomechanics and Rehabilitation Engineering
    2013-2021 Motor Control and Human Performance Assessment
    2013- Analysis of Biomedical Data and Signals
    2021- Bioengineering of Human Movement
    2023- Wearable Devices and Internet of Healthcare Things

PhD Programs
    1999-2001 Board Member, PhD program in Robotics
    2002-2005 Board Member, PhD program in Bioengineering and Bioelectronics
    2011-2015 Board Member, PhD program in Bioengineering, Doctoral School on Sciences and Technologies for Information and Knowledge
    2013-2017, 2021- Board Member, PhD program in Bioengineering and Robotics

RESEARCH GRANTS (PI or Co-PI)
2002-2005 IST-2001-33564 A bioartificial brain with an artificial body: training a cultured neural tissue to support the purposive behavior of an artificial body (NEUROBIT). European Commission, FP5-FET. Co-PI (consortium grant, head of UNIGE-DIST research unit)

2003-2004 Algoritmi e architetture per l'interazione bi-direzionale con tessuto nervoso (#2003091121_002). MIUR, PRIN2003, Co-PI (consortium grant, head of UNIGE research unit)

2006-2008 Measures of functional connectivity and structural complexity in populations of cultured neurons (2005099814_003). MIUR, PRIN 2005, Co-PI (consortium grant, head of UNIGE research unit)

2008-2011 Robot-based assessment and therapy in the treatment of upper limb impairment in Multiple Sclerosis: a multi-center, randomised controlled trial. Italian Multiple Sclerosis Foundation. Co-PI (consortium grant, head of UNIGE research unit)

2009-2012 FP7-ICT-231724 HUman behavioral Modeling for enhancing learning by Optimizing hUman-Robot interaction (HUMOUR), European Commission. Principal Investigator (consortium grant, general project coordinator and head of UNIGE-IIT research unit)

2011-2013 A new generation of personal interactive technologies to support motor skill learning and neuro-rehabilitation (2015HFWRYY_005), MIUR, PRIN 2009. Principal Investigator (consortium grant: general project coordinator and head of UNIGE research unit)

2012-2016 Assisting humans with special needs: Curriculum for Human-Tool interaction Network (HUTON). European Commission, TEMPUS Program. Co-PI (consortium grant; head of UNIGE research unit)

2017-2020 Probing the modular organization of the neuromuscular control of limb movements: an inter-disciplinary approach (ModuLimb) (2015HFWRYY_005). MIUR, PRIN 2015. Co-PI (consortium grant; head of UNIGE research unit)

2018-2021 Interaction with OBjects and Interaction With humAns: from neural correlates to partner models and Neuroergonomics (OBIWAN). UNIGE-DIBRIS Seed Grant. Principal Investigator.

2022- Robotics and AI for socio-economic empowerment (RAISE). Spoke 2 'Smart devices and technologies for personal and remote healthcare'. PNRR MUR M4C2 Investment 1.5 Innovation Ecosystems. Reference person for UniGe. WP leader, WP3 Rehabilitation ecosystems.

2024- Solution for body kinematics monitoring (GESTUS). European Commission, HORIZON-EUSPA-2023-SPACE-01-41. Co-PI (consortium grant; head of UNIGE research unit)

ORGANIZATION OF SCIENTIFIC EVENTS

2004, 2nd European School of Neuroengineering "MASSIMO GRATTAROLA", Genova. Co-organizer (with S. Martinoia)

2006, 4th European School of Neuro-IT and Neuroengineering: Dynamics, Computation and Learning in Neural Systems, Genova. Co-organizer (with S. Martinoia).

2011 IEEE Engineering in Medicine and Biology Conference, Boston, USA. Special Session 'What is motor skill and can technology enhance it?'. Co-organizer (con JW Krakauer). Track Chair, Motor Learning and Neural Control.

2011 IEEE International Conference on Rehabilitation Robotics (ICORR), Zurigo (CH). Workshop 'Motor skill learning and neuro-rehabilitation'. Organizer

2014 Winter School 'Computational Methods in Neurorehabilitation', Obertauern (Austria), 27-31 Jan 2014. Co-organizer (with E. Burdet e T. Keller)

2018 International Conference on Neuro-Rehabilitation, Special Session 7 'Shaping robotic training to maximize patient outcome: new trends and perspectives', Pisa. Co-organizer (with R. Colombo).

2019. Workshop 'Innovation in Rehabilitation Technologies', Genova 4-5 Marzo 2019. Co-organizer (with C. Pistarini).

INVITED PRESENTATIONS (last 5 years)

1 Jun 2019: Computational and robotic tools to understand interpersonal coordination and improve neuromotor recovery. Invited lecture. Mathworks Research Summit, Newton MA (USA)

13 Dec 2019: Interazione fisica per il recupero neuromotorio: Personalizzazione della terapia e teoria dei giochi. ECM Course 'Quale tecnologia per quale riabilitazione'. Ospedale Pediatrico Bambino Gesù IRCCS, Roma.

29 Oct 2020: Computational Neurology: devices, data and models for characterization and monitoring of neuromuscular pathologies. Joint AIM-ASNP congress. Online.

9 Dec 2020: Computational Neurology: Devices, data and models for characterization and monitoring of neuromuscular pathologies. Congresso congiunto AIM-ASNP (online)

13 Apr 2021: Neuroingegneria e Macchine intelligenti interattive: Dai corpi artificiali alle interfacce neurali. Rotary Club Vercelli.

27 Jun 2022. Computational Joint Action. EMBRACE summer school. Madrid, Spain.

9 Nov 2022. Robot per la terapia personalizzata. Giornata della Scienza, Genova.

29 Sep 2023. Computational joint action: from joint coordination to artificial partners. Progress in Motor Control 2023, Roma.

21 Oct 2023. Data-driven robot rehabilitation: Modeling the recovery process to personalize treatment. I-RIM 3D 2023. Roma.

15 Feb 2024. Robotics and AI for socio-economic empowerment (RAISE) L'ecosistema ligure dell'innovazione, basato sui domini scientifici e tecnologici dell'AI e della Robotica. XIII Congresso Nazionale SIRN, Firenze.

1 Sep 2024. Computational joint action to study emergent coordination and to assess interaction capabilities. Workshop 'Joint Discussions about Joint Actions and Interactions (J-DAI). IEEE RAS EMBS 10th International Conference on Biomedical Robotics and Biomechatronics (BioRob 2024), Heidelberg, Germany.

EDITORIAL BOARD
2002-2016 Member, Human Movement Science
2010- Member, Frontiers in Neurorobotics

Author or co-author of a total of 139 indexed scientific publications, including 64 articles in international journals and two books (Elsevier 1997 and 2018).

Scientific work received a total of 3332 citations (Scopus, 28 Sep 2024).
Hirsch index (h-index) is 30 (Scopus, 28 Sep 2024).

JOURNAL ARTICLES (FULL PAPERS)

IJ1. P. Morasso, P. D'Alessio, and V. Sanguineti. Distributed models of motor control. *Functional Neurology Suppl.*, 3:23–30, 1992.

IJ2. P. Morasso and V. Sanguineti. Neurocomputing aspects in modelling cursive handwriting. *Acta Psychologica*, 82:213–235, 1993.

IJ3. P. Morasso and V. Sanguineti. Motor representations – self-organizing maps. *Journal of The Society of Instrument and Control Engineers*, 33(4):289–295, 1994.

IJ4. P. Morasso and V. Sanguineti. Self-organizing body-schema for motor planning. *Journal of Motor Behavior*, 27(1): 52-66, 1995.

IJ5. V. Sanguineti and P. Morasso. Coordinate transformations and trajectory formation in motor control: a neural approach. *Bulletin de la Communication Parlée* , 3:117–135, 1996.

IJ6. P. Morasso and V. Sanguineti. How the brain can discover the existence of external egocentric space. *Neurocomputing*, 12:289–310, 1996.

IJ7. V. Sanguineti and P. Morasso. Modelli interni e rappresentazioni spaziali nel controllo motorio. Sistemi Intelligenti, 8:71-97, 1996.

IJ8. P. Morasso, V. Sanguineti, and G. Spada. A computational theory of targeting based on force fields and topology representing networks. *Neurocomputing*, 15:411-434, 1997.

IJ9. V. Sanguineti, R. Laboissière, and Y. Payan. A control model of human tongue movements in speech. *Biological Cybernetics*, 77(1):11-22, 1997.

IJ10. P. L. Gribble, D. J. Ostry, V. Sanguineti, and R. Laboissière. Are Complex Computations Required for the Control of Arm Movement? *Journal of Neurophysiology*, 79(3):1409–1424, 1998.

IJ11. V. Sanguineti, D. J. Ostry, and R. Laboissière. A Dynamic Biomechanical Model for Neural Control of Speech Production. *Journal of the Acoustical Society of America*, 103(3):1615-1627, 1998.

IJ12. V. Sanguineti, F. Frisone, S. Bruni, and P. Morasso. Can non-linear muscle dynamics explain the smoothness of handwriting movements? *Acta Psychologica*, 100(1-2):217-227, 1998.

IJ13. P. Morasso, V. Sanguineti, F. Frisone, and L. Perico. Coordinate-free sensorimotor processing: Computing with population codes. *Neural Networks*, 11:1417–1428, 1998.

IJ14. V. Sanguineti, P. Morasso. A few points on modeling orofacial dynamics and control. *Bulletin de la Communication Parlée*, 4: 85-89, 1998.

IJ15. P. Morasso, V. Sanguineti, and F. Frisone. Computational implications of modeling grasping as a form of (multiple-parallel) reaching. *Motor Control*, 3:276-279, 1999.

IJ16. B.D. Reger, K.M. Fleming, V. Sanguineti, S. Alford, and F.A. Mussa-Ivaldi. Connecting Brains to Robots: An Artificial Body for Studying the Computational Properties of Neural Tissues. *Artificial Life*, 6(4): 307–324, 2000.

IJ17. P.G. Morasso and V. Sanguineti. Ankle muscle stiffness cannot stabilize balance during quiet standing. *Journal of Neurophysiology* 88(4): 2157-2162, 2002.

IJ18. T. Tsuji, Y. Tanaka, P. G. Morasso, V. Sanguineti and M. Kaneko. Bio-Mimetic Trajectory Generation of Robots via Artificial Potential Field with Time Base Generator. *IEEE Transactions on Systems, Man, and Cybernetics – Part C: Applications and Reviews* 32(4):426:439, 2003.

IJ19. V. Sanguineti, PG Morasso, L. Baratto, G. Brichetto, GL Mancardi, C. Solaro. Cerebellar ataxia: Quantitative assessment and cybernetic interpretation. *Human Movement Science* 22:189-205, 2003.

IJ20.   Jacono M, Casadio M, Morasso PG, Sanguineti V. The sway-density curve and the underlying postural stabilization process. *Motor Control* 8(3):292-311, 2004.

IJ21.   S. Martinoia, V. Sanguineti, L. Cozzi, L. Berdondini, J. van Pelt, J. Tomas, G. Le Masson, and F. Davide, "Towards an embodied in vitro electrophysiology: the NeuroBIT project," *Neurocomputing*, vol. 58-60, pp. 1065-1072, 2004.

IJ22.   Casadio M, Morasso PG, Sanguineti V. Direct measurement of ankle stiffness during quiet standing: implications for control modelling and clinical application. *Gait and Posture*. 21(4):410-424, 2005.

IJ23.   Morasso P, Bottaro A, Casadio M, Sanguineti V Preflexes and internal models in biomimetic robot systems. *Cognitive Processing*, 6(1):25-36*, 2005.*

IJ24.   A. Karniel, M. Kositsky, K. M. Fleming, M. Chiappalone, V. Sanguineti, S. T. Alford, and F. A. Mussa-Ivaldi, "Computational analysis in vitro: dynamics and plasticity of a neuro-robotic system," *J Neural Eng*, vol. 2, pp. S250-65, 2005.

IJ25.   A. Bottaro, M. Casadio, P. G. Morasso, and V. Sanguineti, "Body sway during quiet standing: Is it the residual chattering of an intermittent stabilization process?," *Human Movement Science*, vol. 24, pp. 588-615, 2005.

IJ26.   Y. Tanaka, T. Tsuji, V. Sanguineti, and P. G. Morasso, "Bio-mimetic trajectory generation using a neural time-base generator," *Journal of Robotic Systems*, vol. 22, pp. 625-637, 2005.

IJ27.   M. Casadio, P. G. Morasso, V. Sanguineti, and V. Arrichiello, "Braccio di Ferro: a new haptic workstation for neuromotor rehabilitation," *Technol Health Care*, vol. 13, pp. 1-20, 2006.

IJ28.   L. Cozzi, P. D'Angelo, and V. Sanguineti, "Encoding of Time-varying Stimuli in Populations of Cultured Neurons," *Biol Cybern*, vol. 94, pp. 335-49, 2006.

IJ29.   C. Solaro, G. Brichetto, M. Casadio, L. Roccatagliata, P. Ruggiu, G. L. Mancardi, P. G. Morasso, P. Tanganelli, and V. Sanguineti, "Subtle upper limb impairment in asymptomatic Multiple Sclerosis subjects," *Mult Scler* 13(3):428-32, 2007.

IJ30.   Casadio M, Sanguineti V., Solaro C., Morasso PG (2007). A Haptic Robot Reveals the Adaptation Capability of Individuals with Multiple Sclerosis. INTERNATIONAL JOURNAL OF ROBOTICS RESEARCH Vol. 26 (11–12), pp. 1225–1233.

IJ31.   A. Novellino, P. D'Angelo, L. Cozzi, M. Chiappalone, Sanguineti V., S. Martinoia. (2007). Connecting Neurons to a Mobile Robot: An In Vitro Bidirectional Neural Interface. COMPUTATIONAL INTELLIGENCE AND NEUROSCIENCE. ISSN: 1687-5265

IJ32.   Casadio M, Sanguineti V, Morasso P, Solaro C. (2008) Abnormal sensorimotor control, but intact force field adaptation, in multiple sclerosis subjects with no clinical disability. Mult Scler. 14(3):330-342.

IJ33.   Solaro C, Brichetto G, Capello E, Abuarqub S, Sanguineti V (2008) Activity, tolerability and efficacy of levetiracetam on cerebellar symptoms in multiple sclerosis patients: a pilot kinematic study. European Journal of Neurology 15(6):619-626.

IJ34.   Casadio M, Morasso P, Ide AN, Sanguineti V, Giannoni P, (2009) Measuring functional recovery of hemiparetic subjects duriing gentle robot therapy. Measurement 42(8):1176-1187.

IJ35.   Casadio M, Giannoni P, Morasso P, Sanguineti V, (2009) A proof of concept study for the integration of robot therapy with physiotherapy in the treatment of stroke patients. Clinical Rehabilitation 23(3):217-28.

IJ36.   Casadio M, Morasso P, Sanguineti V, Giannoni P. (2009) Minimally assistive robot training for proprioception enhancement. Exp Brain Res. 194(2):219-31.

IJ37.   Squeri V, Casadio M, Vergaro E, Giannoni P, Morasso P, Sanguineti V. (2009) Bilateral robot therapy based on haptics and reinforcement learning: Feasibility study of a new concept for treatment of patients after stroke. J Rehabil Med 41(12):961-5.

IJ38.   Anwar MN, Bonzano L, Sebastiano DR, Roccatagliata L, Gualniera G, Vitali P, Ogliastro C, Spadavecchia L, Rodriguez G, Sanguineti V, Morasso P, Bandini F. (2009) Real-time artifact filtering in continuous VEPs/fMRI recording. J Neurosci Methods. 184(2):213-23.

IJ39.   Casadio M, Giannoni P, Masia L, Morasso P, Sandini G, Sanguineti V, Squeri V, Vergaro E (2009) Robot therapy of the upper limb in stroke patients: rational guidelines for the principled use of this technology. Functional Neurology 24:195-202.

IJ40.   Casadio M, Sanguineti V, Squeri V, Masia L, Morasso P. (2010) Inter-limb interference during bimanual adaptation to dynamic environments. Exp Brain Res. 202:693–707.

IJ41.   Vergaro E, Casadio M, Squeri V, Giannoni P, Morasso P, Sanguineti V (2010) Self-adaptive robot-training of stroke patients for continuous tracking movements. J of NeuroEngineering and Rehabilitation *2010, 7:13.*

IJ42.   Mussa-Ivaldi FA, Alford ST, Chiappalone M, Fadiga L, Karniel A, Kositsky M, Maggiolini E, Panzeri S, Sanguineti V, Semprini M, Vato A (2010) New perspectives on the dialogue between brains and machines. Frontiers in Neuroscience 4(1): 44-52.

IJ43.   Vergaro E, Squeri V, Brichetto G, Casadio M, Morasso P, Solaro C, Sanguineti V (2010) Adaptive robot training for the treatment of incoordination in Multiple Sclerosis. Journal of NeuroEngineering and Rehabilitation 2010, 7:37.

IJ44.   Casadio M, Giannoni P, Masia L, Morasso P, Sanguineti V, Squeri V, Vergaro E (2010) Consciousness as the emergent property of the interaction between brain, body, and environment: implications for robot-enhanced neuromotor rehabilitation. Journal of Psychophysiology 24(2):125-130.

IJ45.   Moisello C, Perfetti B, Marinelli L. Sanguineti V, Bove M, Feigin A, Di Rocco A, Eidelberg D, Ghilardi MF (2011) Basal ganglia and kinematics modulation: Insights from Parkinson's and Huntington's diseases. Parkinsonism Relat Disord. 17(8):642-4.

IJ46.   Novakovic V, Sanguineti V. (2011) Adaptation to constant-magnitude assistive forces: kinematic and neural correlates. Exp Brain Res. 209(3):425-36.

IJ47.   Balasubramanian S, Colombo R, Sterpi I, Sanguineti V, Burdet E (2012) Robotic assessment of upper-limb motor function after stroke. American Journal of Physical Medicine and Rehabilitation 91(11 Suppl 3):S255-69.

IJ48.   Basteris A., Bracco L., Sanguineti V. (2012) Robot-assisted intermanual transfer of handwriting skills. Human Movement Science 31(5):1175-90.

IJ49.   M. Casadio, V. Sanguineti (2012) Learning, retention and slacking: a model of the dynamics of recovery in robot therapy. IEEE Transactions on Neural Systems and Rehabilitation Engineering 20(3): 286-296.

IJ50.   E. Burdet, V. Sanguineti, H. Heuer and D.B. Popović (2012) Motor skill learning and neuro-rehabilitation (guest editorial) IEEE Transactions on Neural Systems and Rehabilitation Engineering 20(3): 237-238.

IJ51.   Casadio M, Tamagnone I, Summa S, Sanguineti V. (2013) Neuromotor recovery from stroke: computational models at central, functional, and muscle synergy level. Front Comput Neurosci. 2013 Aug 22;7:97.

IJ52.   N Jarrasse, V Sanguineti and E Burdet (2014), Slaves no longer: review on role assignment for human-robot joint motor action. Adaptive Behavior. Published online before print September 2, 2013, doi: 10.1177/1059712313481044.

IJ53.   Saiano M, Pellegrino L, Casadio M, Summa S, Garbarino E, Rossi V, Dall'Agata D, Sanguineti V. Natural interfaces and virtual environments for the acquisition of street crossing and path following skills in adults with Autism Spectrum Disorders: a feasibility study. J Neuroeng Rehabil. 2015 Feb 19;12:17.

IJ54.   Summa S, Basteris A, Betti E, Sanguineti V. Adaptive training with full-body movements to reduce bradykinesia in persons with Parkinson's disease: a pilot study. J Neuroeng Rehabil. 2015 Feb 14;12:16.

IJ55.   Summa S, Casadio M, Sanguineti V. Effect of Position- and Velocity-Dependent Forces on Reaching Movements at Different Speeds. Front Hum Neurosci. 2016 Nov 29;10:609.

IJ56.   A. Takagi, F. Usai, G. Ganesh, V. Sanguineti and E. Burdet. (2018) Haptic communication between humans is tuned by the hard or soft mechanics of interaction. PLOS Computational Biology 14(3).

IJ57.   Semprini M, Laffranchi M, Sanguineti V, Avanzino L, De Icco R, De Michieli L, Chiappalone M (2018). Technological Approaches for Neurorehabilitation: From Robotic Devices to Brain Stimulation and Beyond. Front Neurol. 9:212. doi: 10.3389/fneur.2018.00212.

IJ58.   Chackochan, VT, Sanguineti V (2019). Incomplete information about the partner affects the development of collaborative strategies in joint action. PLOS Computational Biology. vol. 15, p. e1006385:1-e1006385: 23. doi: 10.1371/journal.pcbi.1006385

IJ59.   Lotti N., Xiloyannis M., Durandau G., Galofaro E., Sanguineti V., Masia L., Sartori M. (2020). Adaptive model-based myoelectric control for a soft wearable arm exosuit: A new generation of wearable robot control. IEEE ROBOTICS AND AUTOMATION MAGAZINE, vol. 27, p. 43-53, ISSN: 1070-9932, doi: 10.1109/MRA.2019.2955669

IJ60.   Solaro, C, Cattaneo, D, Basteris, A, Carpinella, I, De Luca, A, Mueller, M, Bertoni, R, Ferrarin, M, Sanguineti, V (2020). Haptic vs sensorimotor training in the treatment of upper limb dysfunction in multiple sclerosis: A multi-center, randomised controlled trial. Journal of the Neurological Sciences, vol. 412, p. 116743, ISSN: 0022-510X, doi: 10.1016/j.jns.2020.116743

IJ61.   Poliero, T., Sposito, M., Toxiri, S., Di Natali, C., Iurato, M., Sanguineti, V., Caldwell D. G., Ortiz, J. (2021). Versatile and non-versatile occupational back-support exoskeletons: A comparison in laboratory and field studies. Wearable Technologies, 2, E12.

IJ62.   Sedda G, Ostry DJ, Sanguineti V, Sabatini SP (2021) Self-operated stimuli improve subsequent visual motion. Journal of Vision 21(19):13.

IJ63.   Fanti, V., Sanguineti, V., Caldwell, D.G., Ortiz, J., Di Natali, C. (2022) Assessment methodology for human-exoskeleton interactions: Kinetic analysis based on muscle activation. Frontiers in Neurorobotics, 16, 982950.

IJ64.   De Vicariis, Cecilia; Pusceddu, Giulia; Chackochan, Vinil T; Sanguineti, Vittorio (2022). Artificial Partners to Understand Joint Action: Representing Others to Develop Effective Coordination. IEEE Transactions on Neural Systems and Rehabilitation Engineering 30, pp. 1473–1482

IJ65.   De Vicariis, C.; Chackochan, VT; Sanguineti, V. (2024) Game theory and partner representation in joint action: toward a computational theory of joint agency. Phenomenology and the Cognitive Sciences 23(3), pp. 599-628.

IJ66.   De Vicariis C, Chackochan VT, Bandini L, Ravaschio E, Sanguineti V (in press) Computational joint action: dynamical models to understand the development of joint coordination. PLOS Computational Biology (accepted 24/09/24).

BOOKS
B 1.   P. Morasso and V. Sanguineti (eds) Self-Organization, Computational Maps and Motor Control. Elsevier-North-Holland, 1997.

B 2.   R. Colombo and V. Sanguineti (eds) Rehabilitation Robotics: theory and application. Elsevier, 2018.