

UNIVERSITÀ DEGLI STUDI DI GENOVA

CANDIDATURA PER COMPONENTE DEL SENATO ACCADEMICO

Oggetto: Elezioni componenti del senato accademico – mandato dall'1.11.2024 al 31.10.2027

Il sottoscritto **SANGUINETI VITTORIO**

matricola n. (o m i s s i s) telefono: **010 335 6487** cell. (o m i s s i s)

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pec: (o m i s s i s)

<i>sezione da compilare solo dai candidati docenti</i>
professore ordinario dell'area scientifico disciplinare 09 - Ingegneria Industriale e dell'Informazione ssd IBIO/01/A – Bioingegneria

PRESENTA LA PROPRIA CANDIDATURA

alla carica di (*Barrare una casella*)

rappresentante dei docenti della scuola **Politecnica**

rappresentante dei direttori di dipartimento

rappresentante dei tecnici-amministrativi

le cui elezioni sono state indette, per il mandato dall'1.11.2024 al 31.10.2027

DICHIARA

(*Barrare le caselle interessate*)

di non incorrere in alcuna delle situazioni di incompatibilità di cui all'art. 60, commi 1, 2 e 5, dello Statuto e all'art. 22 del regolamento generale di Ateneo;

di versare nella seguente situazione di incompatibilità

Coordinatore del Corso di Studio in Ingegneria Biomedica/Bioengineering.

di non trovarsi in alcuna condizione che determini inconferibilità ai sensi del D. Lgs. 8.4.2013, n. 39 e successive modifiche e integrazioni;

di non trovarsi in alcuna delle situazioni di inammissibilità (ineleggibilità);¹

¹ **Situazioni di inammissibilità (ineleggibilità)**

1. Non è ammessa la candidatura di coloro che:

a) hanno riportato condanne penali, anche non definitive;

b) sono sospesi dal servizio a seguito di procedimento penale o disciplinare o, cautelativamente, in attesa di procedimento penale o disciplinare;

c) sono esonerati dagli obblighi di ufficio, comandati, distaccati, in aspettativa obbligatoria per situazioni di incompatibilità o congedo per motivi di servizio all'estero del coniuge; sono in aspettativa per svolgere il periodo di prova o per svolgere attività presso altra pubblica amministrazione; sono in servizio civile o in aspettativa per svolgere attività libero-professionale (quest'ultima voce, limitatamente al personale tecnico-amministrativo);

d) non assicurano un numero di anni di servizio prima del collocamento a riposo almeno pari alla durata del mandato (art. 59, comma 1, dello Statuto) il quale avrà scadenza il 31.10.2027;

e) hanno già svolto, in qualunque veste, due mandati consecutivi, compresi i mandati svolti parzialmente per subentro al posto di un componente cessato anticipatamente (art. 61 dello Statuto), senza che sia successivamente trascorso un periodo non inferiore alla durata del mandato;

di aver letto le disposizioni del decreto di indizione, con particolare riferimento alla pubblicazione della candidatura e dei relativi allegati sull'albo e sul sito *web* di Ateneo.

Il/La sottoscritto/a dichiara di essere consapevole che:

1. la presentazione di candidatura da parte di un eligendo che si trovi in una situazione di incompatibilità equivale a rinuncia alla carica incompatibile già rivestita o alla situazione che determina tale incompatibilità, in caso di elezione;
2. la presentazione di candidatura da parte di un professore in regime di impegno a tempo definito comporta l'opzione irrevocabile per il regime di impegno a tempo pieno, in caso di elezione (art. 22 del Regolamento generale di Ateneo).

Il/La sottoscritto/a allega (a pena di esclusione):

- fotocopia di un documento di identità valido
- *curriculum vitae*
- *curriculum vitae* in formato aperto (formato odt, doc e docx) (**opzionale**)

Il/La sottoscritto/a indica i seguenti recapiti al fine di ricevere le comunicazioni inerenti al procedimento in oggetto (*Nota: i seguenti recapiti saranno appositamente oscurati nei documenti pubblicati sull'albo web e sul sito web di Ateneo*).

Dipartimento di Informatica, Bioingegneria, Robotica e Ingegneria dei Sistemi

Università di Genova

Via all'Opera Pia 13

16145 Genova GE

(o m i s s i s)

Data _____

VITTORIO
SANGUINETI
Università
degli Studi di
Genova
02.10.2024
13:59:16
GMT+02:00

(Vittorio Sanguineti)

Avvertenze:

- Non inserire nella candidatura e nel *curriculum vitae* dati personali non pertinenti o eccedenti rispetto alle finalità del trattamento.
- Non sono prese in considerazione e sono escluse dalla procedura:
 - domande senza *curriculum vitae* o copia di documento di identità valido;
 - domande non firmate e datate
- L'Università degli studi di Genova si riserva di verificare la veridicità delle dichiarazioni rese e delle autocertificazioni prodotte ai sensi e per gli effetti del D.P.R. 28.12.2000, n. 445 e s.m..

f) sono portatori di interessi in conflitto, reale o potenziale, a carattere strutturale, con l'Ateneo;
g) sono componenti della commissione elettorale;

Le candidature sono esaminate dalla commissione elettorale, la quale verifica la sussistenza delle condizioni di carattere generale.

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 (2015HFWRY_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) (2015HFWRY_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 SIRM, 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

LIST OF PUBLICATIONS (September 28, 2024)

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. Bricchetto, 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. Bricchetto, 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, Bricchetto 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 during 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, Maggolini 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, Bricchetto 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.
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