Poster Session #2 – Wednesday June 24 & Thursday June 25

P.193 New insights into the role of postural sway
Mark G. Carpenter[1], Chantelle D. Murnaghan[1], J. Timothy Inglis[1], [1]*School of Human Kinetics, University of British Columbia, Vancouver, BC, Canada*

P.194 Feedback during COM stabilization does not prevent exploratory COP behaviour during upright stance
Chantelle D. Murnaghan[1], J. Timothy Inglis[1], Mark G. Carpenter[1], [1]*School of Human Kinetics, University of British Columbia, Vancouver, Canada*

P.195 Strategy choice in stepping over obstacles, effects of gait velocity and added mass
Jaap van Dieen[1], Dieuwke Loenen[1,2], Melvin Roerdink[1], Mirjam Pijnappels[1], [1]*Research Institute MOVE, Faculty of Human Movement Sciences, VU University Amsterdam, Amsterdam, Netherlands,* [2]*Department of Biomedical Engineering, University of Twente, Enschede, Netherlands*

P.196 Identification of motor unit discharge patterns in the gastrocnemii muscles during quiet standing
Taian Vieira[1,2], Ales Holobar[1], Roberto Merletti[1], [1]*Politecnico di Torino, Turin, TO, Italy,* [2]*Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil*

P.197 Abdominal muscle reactions to rapid shoulder flexion in a situation without upright postural demand
Martin Eriksson Crommert[1,2], Alf Thorstensson[2,3], [1]*Örebro University, Örebro, Sweden,* [2]*The Swedish School of Sport and Health Sciences, Stockholm, Sweden,* [3]*Karolinska Institutet, Stockholm, Sweden*

P.198 Reticulospinal control of presynaptic inhibition in primary afferents of the cat.
Jennifer Sirois[1], Alain Frigon[1], Jean-Pierre Gossard[1], [1]*University of Montréal, Montreal, Québec, Canada*

P.199 Cortical contribution to the intralimb and interlimb coordination during bipedal locomotion in monkey
Futoshi Mori[1], [1]*Yamaguchi University, Yamaguchi, Japan*

P.200 Proactive strategies for potential loss of ground support during human walking
Masahiro Shinya[1], Shingo Oda[1], [1]*Kyoto University, Kyoto, Kyoto prefecture, Japan*

P.201 Postural stabilization effects of light finger touch do not come from plane-specific sensory cues of postural orientation
Hui-Ya Chen[1], [1]*School of Physical Therapy, Chung Shan Medical University, Taichung, Taiwan*

P.202 The influence of walking speed on trunk sway
Ursula Küng[1], Sophie Jansen[1], Krissy Goutier[1], Corinne Horlings[1], Flurin Honegger[1], John Allum[1], [1]*Dept. of ORL, University Hospital, Basel, Switzerland*

P.203 Is neural modulation of activity in the muscles across the ankle necessary to maintain balance?
Irene Di Giulio[1], Costantinos N. Maganaris[1], Baltzopoulos Vasilios[1], Ian D. Loram[1], [1]*MMU, Manchester, United Kingdom*

P.204 Multi-sensory internal representations of visual information for the control of arm movements
Michele Tagliabue[1,2], Joseph McIntyre[1,2], [1]*CNRS, Paris, France,* [2]*Université Paris Descartes, Paris, France*

P.205 The speed-accuracy trade-off effects on the gait initiation planning
Matteo Bertucco[1], Paola Cesari[1], [1]*University of Verona - Faculty of Exercise and Sport Science, Verona, Italy*

P.206 Influence of single joint perturbation on interlimb co-ordination during human gait
Shilpa Ashok Razdan[1], Thomas Sinkjær[1,3], Katinka Stecina[2], Jens Bo Nielsen[2], Natalie Mrachacz-Kersting[1], [1]*Center for Sensory-Motor Interaction (SMI), Department of Health Science and Technology, Aalborg University, Aalborg Øst, Nordjylland, Denmark,* [2]*Department of Medical Physiology, Panum Institute, University of Copenhagen, Copenhagen, Denmark,* [3]*Danish National Research Foundation, Copenhagen K, Denmark*

P.208 Characterizing the determinants of limb preference for compensatory stepping in healthy young adults: implications for individuals with stroke
Bimal Lakhani[1,2], Avril Mansfield[3,2], Elizabeth Inness[2,4], William McIlroy[5,2], [1]*Rehabilitation Science, University of Toronto, Toronto, ON, Canada,* [2]*Toronto Rehabilitation Institute, Toronto, ON, Canada,* [3]*HSF Centre for Stroke Recovery, Sunnybrook Research Institute, Toronto, ON, Canada,* [4]*Physical Therapy, University of Toronto, Toronto, ON, Canada,* [5]*Kinesiology, University of Waterloo, Waterloo, ON, Canada*

P.209 Generalizability of perturbation-evoked cortical potentials: cortical activity linked to temporally-urgent responses
George Mochizuki[1,2], Jeanie Zabukovec[3], Kathryn Sibley[1], William McIlroy[1,3], [1]*Toronto Rehabilitation Institute, Toronto, Ontario, Canada,* [2]*Heart and Stroke Foundation Centre for Stroke Recovery, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada,* [3]*University of Waterloo, Waterloo, Ontario, Canada*

P.210 Preserving postural stability while reaching beyond arm's length
Jacopo Zenzeri[1], Vishwanathan Mohan[1,2], Pietro Morasso[1,2], [1]*University of Genova, DIST, Genova, Italy,* [2]*Italian Institute of Technology, Genova, Italy*

P.211 Obstacle avoidance responses to a startling auditory stimulus applied at different delays
Ana Queralt[1,6], Maarten J Besjes[2], Juan M Castellote[1], Josep Valls-Sole[3], Jacques Duysens[4,5], Vivian Weerdesteyn[2,4], *[1]Instituto de Salud Carlos III, Madrid, Spain, [2]Department of Rehabilitation Medicine, Radboud University Medical Centre, Nijmegen, Netherlands, [3]Unitat d'EMG, Servei de Neurologia, Hospital Clínic, Universitat de Barcelona, IDIBAPS, Barcelona, Spain, [4]Sint Maartenskliniek Research, Nijmegen, Netherlands, [5]Motor Control Laboratory, Department of Biomedical Kinesiology, K.U. Leuven, Leuven, Belgium, [6]Universitat de València, València, Spain*

P.212 Anticipating gait initiation leads to early activation of the motor programme for locomotion
Ana Queralt[1,3], Josep Valls-Sole[2], Juan M Castellote[1], *[1]Instituto de Salud Carlos III, Madrid, Spain, [2]Unitat d'EMG, Servei de Neurologia, Hospital Clínic, Universitat de Barcelona, IDIBAPS, Barcelona, Spain, [3]Universitat de València, València, Spain*

P.213 Centre of mass control during volitional stepping
Jonathan Singer[1], Stephen Prentice[1], William McIlroy[1], *[1]University of Waterloo, Waterloo, Ontario, Canada*

P.214 Balance control strategy during a forward lunge step
Leigh Bloomfield[1], Jim Frank[1], *[1]University of Windsor, Windsor, Ontario, Canada*

P.215 Posture-Locomotor Interactions are equivalent in the AP and ML directions
Eric Anson[1], Peter Agada[1], Tim Kiemel[1], Yuri Ivanenko[2], Francesco Lacquaniti[2], John Jeka[1], *[1]University of Maryland, College Park, MD, United States, [2]RCCS Fondazione Santa Lucia, Rome, Italy*

P.216 Is there premotoneuronal modulation of soleus H-reflex by rhythmic arm swing?
Firas Massaad[1], Oron Levin[1], Pieter Meyns[1], Steven Demont[1], Jacques Duysens[1], *[1]KU-Leuven, Leuven, Belgium*

P.217 Gravity and interactive torques: wired by competition in stepping over obstacle
Laurence Mouchnino[1], Nils Gueguen[2], Thelma Coyle[2], François Prince[3], *[1]Laboratoire Neurobiologie de la cognition, Marseille, France, [2]Laboratoire Mouvement et Perception, Marseille, France, [3]Laboratoire de Posture et Locomotion, Montréal, Canada*

P.218 Dual task performances can be improved in patients with dementia
Michael Schwenk[1], Tania Zieschang[1], Peter Oster[1], Klaus Hauer[1], *[1]Bethanien-Krankenhaus, Heidelberg, Germany*

P.219 Impact of impaired executive function on gait stability
Olivier Beauchet[1], Gilles Alllali[2], Cedric Annweiler[1], Frederic Assal[2], Stephanie Brindenbaugh[3], Reto Kressig[3], Francois Herrmann[2], *[1]Angers University hospital, ANGERS, France, [2]Geneva University hospital, GENEVA, Switzerland, [3]Bales University hospital, Bales, Switzerland*

P.220 When ergonomy and posture help academic achievement
Pascal Bourgeois[1], *[1]ILEPS, Cergy Pontoise, France*

P.221 Relationship between standing balance and white matter changes in individuals with dementia and cognitive impairment
Avril Mansfield[1,2], Lisa Alexander[1,2], Cynthia Danells[1,2], Sandra Black[2,4], William McIlroy[3,5], *[1]Heart and Stroke Foundation Centre for Stroke Recovery, Ontario, Canada, [2]Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada, [3]Toronto Rehabilitation Institute, Toronto, Ontario, Canada, [4]University of Toronto, Toronto, Ontario, Canada, [5]University of Waterloo, Waterloo, Ontario, Canada*

P.222 Relationship between white matter change and gait characteristics during single and dual tasking in older persons with cognitive impairment
Lisa D. Alexander[1,2], Avril Mansfield[1,2], Cynthia J. Danells[1,2], Sandra E. Black[1,3], William E. McIlroy[1,4], *[1]Heart and Stroke Foundation Centre for Stroke Recovery, Toronto, ON, Canada, [2]Sunnybrook Health Sciences Centre Research Institute, Toronto, ON, Canada, [3]Department of Medicine (Neurology) at Sunnybrook Health Sciences Centre & University of Toronto, Toronto, ON, Canada, [4]Department of Kinesiology, University of Waterloo, Waterloo, ON, Canada*

P.223 Gait characteristics in elderly persons with intellectual disabilities
Lotte Enkelaar[1], Vivian Weerdesteyn[1,2], Chris de Haas[3], Alexander Geurts[1,2], *[1]Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, [2]Sint Maartenskliniek Research Development & Education, Nijmegen, Netherlands, [3]Dichterbij, Gennep, Netherlands*

P.224 Correlation dimension (D_k) estimates of human postural sway due to aging
Senih Gurses[1], Huseyin Celik[1], *[1]Middle East Technical University, Ankara, Turkey*

P.225 Motor-equivalent control of step parameters, center of mass, and head orientation: Uncontrolled manifold analysis of treadmill walking in early adulthood and normal aging
Julius Verrel[1], Martin Lövdén[1,2], Ulman Lindenberger[1], *[1]MPI for Human Development, Berlin, Germany, [2]Lund University, Lund, Sweden*

P.226 Ageing and gait variability - The Tasmanian study of cognition and gait
Michele Callisaya[1], Jennifer McGinley[3], Leigh Blizzard[1], Michael Schmidt[1], Velandai Srikanth[1,2], *[1]Menzies Research Institute, Hobart, Tasmania, Australia, [2]Monash Medical Centre, Melbourne, Victoria, Australia, [3]Murdoch Children's Institute, Melbouren, Victoria, Australia*

P.227 Gait variability among healthy adults: Low and high stride-to-stride variability are both a reflection of gait stability
Stephanie Bridenbaugh[1], Gilles Allali[2], Cedric Annweiler[3], Frederic Assal[2], Reto Kressig[1], Francois Herrmann[2], Olivier Beauchet[3], *[1]Basel University Hospital, Basel, Switzerland, [2]Geneva University Hospital, Geneva, Switzerland, [3]Angers University Hospital, Angers, France*

P.228 Sensory and motor changes due to aging and the effects on postural control
Diana Toledo[1], José Barela[2], [1]*São Paulo State University, Rio Claro/SP, Brazil,* [2]*Cruzeiro do Sul University, São Paulo/SP, Brazil*

P.229 Relationship between ankle range of motion and postural stability in elderly women
George Igglezakis[1], Vassilia Hatzitaki[1], [1]*Motor Control and Learning Laboratory, Aristotelion University of Thessaloniki, Thessaloniki, Greece*

P.230 Coordination of walking and hand motor control in the elderly
Gudrun Diermayr[1], Frederic Albert[1], Iris Krause[1], Terry R. Kaminsky[1], Andrew M. Gordon[1], [1]*Teachers College, Columbia University, New York, NY, United States*

P.231 Acceptance and efficacy of the Nintendo Wii fit as a balance training activity for older people at risk of falls
Tracy Comans[1,2], Michelle Currin[1,3], Gail Wickham[2], [1]*University of Queensland, Brisbane, Australia,* [2]*Queensland Health, Brisbane, Australia,* [3]*Flinders University, Adelaide, Australia*

P.232 Stepping parameters measured using Dance Dance Revolution style games reveal significant differences between older and younger adults
Stuart Smith[1], Catherine Sherrington[2], Stephanie Studenski[3], Stephen Lord[1], [1]*Prince of Wales Medical Research Institute, Randwick, NSW, Australia,* [2]*The George Institute, Sydney, Australia,* [3]*The University of Pittsburgh, Pittsburgh, United States*

P.233 The effects of manipulating stair edge visibility on foot placement and balance control of young, low-risk and high-risk older adults during stair descent
Doerte Zietz[1], Leif Johannsen[1], Mark Hollands[1], [1]*University of Birmingham, Birmingham, United Kingdom*

P.234 Correction of presbyopia using a monovision approach may compromise gait safety
David Elliott[1], Anna Vale[1], Graham Chapman[1], John Buckley[1], [1]*Vision & Mobilty Lab, University of Bradford, Bradford, west Yorkshire, United Kingdom*

P.235 Ageing involves wider spectral bandwidth and greater amplitude of emg signals during walking
Vito Monaco[1], Alessio Ghionzoli[1], Silvestro Micera[1], [1]*Scuola Superiore Sant'Anna, Pisa, PI, Italy*

P.236 Older adults can selectively use rotational optic flow cues to guide heading direction while walking
Jessica Berard[1,2], Joyce Fung[1,2], Anouk Lamontagne[1,2], [1]*McGill University, Montreal, Quebec, Canada,* [2]*Jewish Rehabilitation Hospital (CRIR) Research Center, Laval, Quebec, Canada*

P.237 Planar Covariance during Weighted Level Ground Walking and Obstacle Clearance Tasks
Marc DeRochie[1], Jeremy W. Noble[1], Stephen D. Prentice[1], [1]*University of Waterloo, Waterloo, Ontario, Canada*

P.238 How long does it take to adjust steps after an unexpected perturbation during running?
Mikaël Scohier[1], Dominique De Jaeger[1], Bénédicte Schepens[1], [1]*Université catholique de Louvain, Louvain-la-Neuve, Belgium*

P.239 Patterns of elevation angle planar covariation during obstacle clearance
Michael MacLellan[1,2], Bradford McFadyen[1,2], [1]*Centre Interdisciplinaire de Recherché en Réadaptation et Intégration Sociale (CIRRIS), Québec, Québec, Canada,* [2]*Université Laval, Québec, Québec, Canada*

P.240 Hierarchical synergic control of posture
Mark Latash[1], [1]*Penn State University, University Park, PA, United States*

P.241 Contributions of the upper limb movements on body equilibrium during the process of learning a dynamic balancing task
Philippe Corbeil[1,2], Isabelle Riedl[1], John Zettel[3], [1]*Université Laval, Québec, Québec, Canada,* [2]*Centre d'excellence sur le vieillissement de Québec, Québec, Québec, Canada,* [3]*University of Guelph, Guelph, Ontario, Canada*

P.242 The influence of stride frequency and body-weight support on muscle coordination during weight-assisted treadmill locomotion.
Taryn Klarner[1], Henry Chan[2], Tania Lam[1], James Wakeling[2], [1]*University of British Columbia, Vancouver, British Columbia, Canada,* [2]*Simon Fraser University, Burnaby, British Columbia, Canada*

P.243 The effect of visual perception on coordination of posture and arm movement during standing.
Ksenia Ustinova[1], Janice Perkins[1], Liza Szostakowski[1], Lisette Tamkei[1], Wesley Leonard[1], [1]*Central Michigan University, Mount Pleasant, United States*

P.244 Ground reaction force coordination during split-belt treadmill walking
Philippe Gourdou[1], Rachid Aissaoui[1,2], Sylvie Nadeau[2], [1]*École de technologie supérieure, Montréal,Québec, Canada,* [2]*Centre de recherche interdisciplinaire en réadaptation de Montréal, Site IRGLM, Montréal,Québec, Canada*

P.245 Foot dynamics and posture change during walking on inclines
Koji Kudo[1], Yasuhiro Osaki[2], Catherine Cho[3], Mikhail Kunin[4], Bernard Cohen[3], Theodore Raphan[3,4], Kazuo Ishikawa[1], [1]*Dept. of Otorhinolaryngology, Akita University School of Medicine, Akita, Japan,* [2]*Dept. of Otorhinolaryngology, Osaka University Graduate School of Medicine, Osaka, Japan,* [3]*Dept. of Neurology Mount Sinai School of Medicine, NY, United States,* [4]*Dept. of Computer and Information Science, Brooklyn College and Graduate Center of City University of New York, NY, United States*

P.246 Multiple APAs during voluntary step initiation in healthy subjects
Rajal Cohen[1], John Nutt[1], Fay Horak[1], [1]*Oregon Health Sciences University, Portland, OR, United States*

P.247 Age and falls history-related differences in the biomechanics of 360º pivot turns
Rachel Wright[1], Derek Peters[1], Paul Robinson[1], Tom Watt[2], Mark Hollands[3], *[1]University of Worcester, Worcester, United Kingdom, [2]PA Consulting Ltd., Cambridge, United Kingdom, [3]University of Birmingham, Birmingham, United Kingdom*

P.248 Eye movements trigger the release of whole body postural turning responses during walking in a virtual environment
Rebecca Reed-Jones[2], James Reed-Jones[2], Lori Vallis[2], Mark Hollands[1], *[1]University of Birmingham, Birmingham, United Kingdom, [2]University of Guelph, Ontario, Canada*

P.249 Motor programming interaction in the sequence of sit-to-stand and walk
Myriam Hazime[1], Alexandra Perrot[1], Viviane Pasqui[1], Manh-Cuong Do[1], *[1]STAPS-Univ Paris-Sud, Orsay, France*

P.250 Arm movements during split-belt walking reveal dominance of interlimb coupling
Bradford McFadyen[1,2], Michael MacLellan[1,2], Khalid Qaderdan[3], Parviez Koehestanie[3], Jacques Duysens[3,4], *[1]Centre Interdisciplinaire de Recherché en Réadaptation et Intégration Sociale (CIRRIS), Québec, Québec, Canada, [2]Université Laval, Québec, Québec, Canada, [3]Department of Research, Development and Education, Sint Maartenskliniek, Nijmegen, Netherlands, [4]Department of Biomedical Kinesiology, (FaBeR) K.U. Leuven, Leuven, Belgium*

P.251 Motor patterns during walking on a slippery surface
Germana Cappellini[1], Yuri P. Ivanenko[1], Nadia Dominici[1,2], Richard E. Poppele[3], Francesco Lacquaniti[1,2], *[1]IRCCS Santa Lucia Foundation, Rome, Italy, [2]University of Rome Tor Vergata, Rome, Italy, [3]University of Minnesota, Minneapolis, United States*

P.252 Complex three-dimensional spine motions during target-directed movements of the trunk in sitting
Richard Preuss[1,2], Milos Popovic[1,2], *[1]Toronto Rehabilitation Institute, Toronto, Ontario, Canada, [2]University of Toronto, IBBME, Toronto, Ontario, Canada*

P.253 Action of communication: body movements anticipate voice
Christine Assaiante[1], Aude Lagier[2], Antoine Giovanni[2], Marianne Vaugoyeau[1], *[1]CNRS-Universite de Provence, Marseille, France, [2]CHU-Service de Phoniatrie, Marseille, France*

P.254 Effects of a fine motor task on postural balance while standing
Jos Vanrenterghem[1], Silvia Tolomio[2], Mirjam Pijnappels[3], *[1]Liverpool John Moores University, Liverpool, Merseyside, United Kingdom, [2]University of Padua, Padua, Italy, [3]VU University Amsterdam, Amsterdam, Netherlands*

P.255 Fatigue-related temporal changes in inter-segmental coordination during repetitive reaching
Jason Fuller[1,2], Joyce Fung[1,3], Julie Cote[1,2], *[1]McGill University, Montreal, Quebec, Canada, [2]Jewish Rehabilitation Hospital, Laval, Quebec, Canada, [3]School of Physical and Occupational Therapy, Montreal, Quebec, Canada*

P.256 Task-independent and task-specific trunk muscle synergies are recruited in bending and reaching
Sheri P. Silfies[1], Corey B. Hart[2], Marco Cannella[1], Simon F. Giszter[2], *[1]Rehabilitation Sciences Research Laboratories, Drexel University, Philadelphia, PA, United States, [2]Department of Neurobiology and Anatomy, Drexel University, College of Medicine, Philadelphia, PA, United States*

P.258 Maintenance of postural equilibrium following antero-posterior translations in sitting
Nancy St-Onge[1,2], Isabelle Patenaude[1,4], Julie Côté[1,3], Richard Preuss[1,5], Joyce Fung[1,6], *[1]CRIR - Jewish Rehabilitation Hospital, Montreal, Quebec, Canada, [2]Concordia University - Department of Exercise Science, Montreal, Quebec, Canada, [3]McGill University - Department of Physical Education and Kinesiology, Montreal, Quebec, Canada, [4]University of Montreal - School of Rehabilitation, Montreal, Quebec, Canada, [5]University of Toronto - Institute of Biomaterials and Biomedical Engineering - Rehabilitation Engineering Laboratory, Toronto, Ontario, Canada, [6]McGill University - School of Physical and Occupational Therapy, Montreal, Quebec, Canada*

P.259 The interaction of posture and locomotion for stability
David Logan[1], Yuri Ivanenko[2], Nadia Dominici[2], Germana Capellini[2], Tim Kiemel[1], Francesco Lacquaniti[2], John Jeka[1], *[1]University of Maryland, College Park, United States, [2]Santa Lucia Foundation, Rome, Italy*

P.260 Anticipatory control of medio-lateral stability during coordination of rapid forward stepping initiation with controlateral and ipsilateral arm raising
Eric Yiou[1], Manh-Cuong Do[1], Nikolaï Gantchev[1], *[1]Motor Control and Perception laboratory UFR STAPS University of Paris sud 11, Orsay, France*

P.261 The invariance of center of pressure release in sit-to-stand
Denis Brunt[1], Justin Pfruender[1], Alia Antonucci-Alter[1], D.S. Blaise Williams[1], *[1]East Carolina University, Greenville, NC, United States*

P.262 Local and global effects of arm perturbation during walking
Melanie C. Banina[1], Tal Krasovsky[1], Anouk Lamontagne[1], Anatol G. Feldman[2], Mindy F. Levin[1], *[1]McGill University, Montreal, Quebec, Canada, [2]University of Montreal, Montreal, Quebec, Canada*

P.263 Synchronised reactive motor control for the co-ordination of arm and body posture stability when unexpected balance perturbation
Olivier MARTIN[1], Mathieu BLANCHARD[1], *[1]GIPSA-lab, Université Joseph Fourier, UMR 5P.216, Dept. Automatique - Systèmes Biomécaniques, 38402 Saint Martin d'Hères cedex, France*

P.264 Improved coordination of reach-to-grasp post-stroke: learning the movement vs. changing the strategy
Carolynn Patten[1,2], Manuela Corti[1,2], Theresa McGuirk[2], *[1]University of Florida, Gainesville, Florida, United States, [2]VA Brain Rehabilitation Research Center, Gainesville, Florida, United States*

P.265 Differential adaptations in reaching control post-stroke: movement execution vs. coordination
Manuela Corti[1,2], Theresa McGuirk[2], Carolynn Patten[1,2], *[1]University of Florida, Gainesville, Florida, United States, [2]VA Brain Rehabilitation Research Center, Gainesville, Florida, United States*

P.266 Dual task effects during swing and stance phases of gait after stroke: a pilot study
Prudence Plummer-D'Amato[1], Lori Altmann[2], Andrea Behrman[2], Michael Marsiske[2], *[1]Northeastern University, Boston, MA, United States, [2]University of Florida, Gainesville, FL, United States*

P.267 Analysis of Postural oscillation in Children with Cerebral Palsy
Andressa Nobre[1], Fernanda Monteiro[2], Marina Golin[1], Daniela Biasotto-Gonzalez[1], João Corrêa[1], Claudia Oliveira[1], *[1]UNINOVE, São Paulo, Brazil, [2]UNIVAP, São Paulo, Brazil*

P.268 Inappropriate calf muscle activity during external perturbation as a measure of severity of HSP
Mark de Niet[1], Vivian Weerdesteyn[1,2], Jaco Pasman[1], Martha Andela[1], Alexander Geurts[1,2], Henk Hendricks[1], *[1]Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, [2]Sint Maartenskliniek Research, Development & Education, Nijmegen, Netherlands*

P.269 Simultaneous measures of kinematics and fMRI: compatibility assessment and case report on recovery evaluation of one Stroke patient
Alessandra Pedrocchi[1], Claudia Casellato[1], Simona Ferrante[1], Giancarlo Ferrigno[1], Giuseppe Baselli[1], Tiziano Frattini[2], Franco Molteni[3], Alberto Martegani[2], *[1]Politecnico di Milano, Milano, Italy, [2]Valduce Hospital, Como, Italy, [3]Villa Beretta Rehabilitation Center, Costamasnaga, Italy*

P.270 Vibration elicits involuntary, air-stepping in individuals with spinal cord injury
Lanitia Ness[1], Edelle Field-Fote[1,2], *[1]University of Miami, Miller School of Medicine; The Miami Project to Cure Paralysis, Miami, FL, United States, [2]Department of Physical Therapy, Miami, FL, United States*

P.272 The influence of walking speed on the spatio-temporal parameters of gait in people with Multiple Sclerosis
Jebb G Remelius[1], Stephanie L Jones[1], Jordan D House[1], Richard EA VanEmmerik[1], *[1]University of Massachusetts, Amherst, United States*

P.273 The gait characteristics of people with Frontal Gait Apraxia
Mary Danoudis[2,5], Belinda Bilney[1,6], Nora Shields[1], Meg Morris[3,5], Robert Iansek[2,4], *[1]School of Physiotherapy, La Trobe University, Bundoora, Victoria, Australia, [2]Clinical Research Centre for Movement Disorders and Gait, Cheltenham, Victoria, Australia, [3]Centre for Clinical Research Excellence in Gait and Gait Rehabilitation, Parkville, Victoria, Australia, [4]National Parkinson Foundation Centre of Excellence, Cheltenham, Victoria, Australia, [5]School of Physiotherapy, The University of Melbourne, Parkville, Victoria, Australia, [6]Queen Elizabeth Centre, Ballarat Health Services, Ballarat, Victoria, Australia*

P.274 Relationship between gait and health related quality of life in people with Parkinson's disease
Mary Danoudis[1,3], Sze-Ee Soh[1], Jennifer McGinley[1,2], Frances Huxham[1], Hylton Menz[1,6], Jennifer Watts[1,4], Anna Murphy[3,5], Robert Iansek[3,5], Meg Morris[1], *[1]School of Physiotherapy,The University of Melbourne, Melbourne, Victoria, Australia, [2]Gait Centre for Clinical Research Excellence, Murdoch Childrens Research Institute, Melbourne, Victoria, Australia, [3]Clinical Research Centre for Movement Disorders and Gait, Melbourne, Victoria, Australia, [4]Centre for Health Economics, Monash University, Melbourne, Victoria, Australia, [5]Monash Ageing Research Centre, Monash University, Melbourne, Victoria, Australia, [6]Musculoskeletal Research Centre, La Trobe University, Melbourne, Victoria, Australia*

P.275 The effects of door width on freezing in Parkinson's disease
Dorothy Cowie[1], Amy Peters[1], Brian L Day[1], *[1]UCL Institute of Neurology, London, United Kingdom*

P.276 Effects of a multi-mode exercise program on Parkinson's patients gait parameters.
Lilian Gobbi[1], Rodrigo Vitorio[1], Claudia Teixeira-Arroyo[1], Maria Joana Caetano[1], Florindo Stella[1,2], Sebastiao Gobbi[1], *[1]UNESP - Sao Paulo State University, Rio Claro, Sao Paulo, Brazil, [2]UNICAMP - Campinas State University, Campinas, Sao Paulo, Brazil*

P.277 Reduced performance in balance, walking and turning tasks is associated with increased neck tone in Parkinson's disease
Erika Franzén[1,2], Caroline Paquette[1], Victor S Gurfinkel[1], Paul J Cordo[1], John G Nutt[1], Fay B Horak[1], *[1]Karolinska Institutet, Stockholm, Sweden, [2]Oregon Health and Science University, Portland, Oregon, United States*

P.278 Association among gait initiation after sit-to-stand and functional capacity components in Parkinson's disease
Fabio Barbieri[1,3], Lilian Gobbi[1], Francisco Cesar[1], Maria Oliveira-Ferreira[1], Natalia Rinaldi[1], Florindo Stella[1,2], Sebastiao Gobbi[1], *[1]UNESP - Sao Paulo State University, Rio Claro, Sao Paulo, Brazil, [2]UNICAMP - Campinas State University, Campinas, Sao Paulo, Brazil, [3]UFSCAR - Sao Carlos Federal University, Sao Carlos, Sao Paulo, Brazil*

P.279 Sensorimotor, balance and gait risk factors for falls in Parkinson's disease
Stephen R Lord[1], Mark D Latt[2], John G L Morris[3], Victor S C Fung[3], *[1]Prince of Wales Medical Research Institute, UNSW, Randwick, NSW, Australia, [2]Department of Aged Care, Royal Prince Alfred Hospital, Sydney, NSW, Australia, [3]Department of Neurology, Westmead Hospital, Sydney, NSW, Australia*

P.280 Turning problems in Parkinson patients with freezing of gait: preliminary data.
Joke Spildooren[1], Kaat Desloovere[1], Sarah Vercruysse[1], Wim Vandenberghe[1], Cathérine Huenaerts[1], Eric Kerckhofs[2], Alice Nieuwboer[1], *[1]Katholieke Universiteit, Leuven, Belgium, [2]Vrije Universiteit, Brussel, Belgium*

P.281 Objective detection of freezing of gait elicited by obstacle avoidance during treadmill walking in Parkinson's disease
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P.282 The impact of deep brain stimulation on parkinsonian gait during dual tasking
Eliraz Seri[1,4], Aner Weiss[1], Zvi Israel[4], Jeffrey Hausdorff[1,2], *[1]Laboratory for Gait & Neurodynamics & Department of Neurology, Tel-Aviv Sourasky Medical Center, Tel Aviv, Israel, [2]Dept Physical Therapy, Sackler School of Medicine, Tel-Aviv University, Tel Aviv, Israel, [3]Division on Aging, Harvard Medical School USA, Boston, MA, United States, [4]Dept. Neurosurgery, Hadassah University Hospital, Jerusalem, Israel*

P.283 Relationship between the angular amplitude oscillation and gait parameters during avoidance obstacles in Parkinson's disease
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P.284 Disturbances in gait and interlimb coordination in Parkinson's disease patients with freezing of gait
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P.285 Impaired bilateral coordination of gait and upper extremity rhythmic movements in Parkinson's disease: association with freezing of gait
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P.286 Improving gait and reducing falls in Parkinson's: protocol for a randomised controlled trial
Meg Morris[1], Jennifer McGinley[1], Frances Huxham[1], Hylton Menz[2], Robert Iansek[3], Jennifer Watts[4], Anna Murphy[3], Mary Danoudis[1], Clarissa Martin[1], Sze-Ee Soh[1], Brook Galna[1], Elizabeth Proud[1], *[1]The University of Melbourne, Victoria, Australia, [2]La Trobe University, Victoria, Australia, [3]Kingston Centre, Victoria, Australia, [4]Monash University, Victoria, Australia*

P.287 Interlimb coordination in Parkinson's disease during split belt locomotion
Anke H Snijders[1], Arnaud Delval[2,3], Wandana Mahabier[1], Vivian Weerdesteyn[4], Luc Defebvre[2], Jacques Duysens[4], Bastiaan R Bloem[1], *[1]Department of Neurology, Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands, [2]Department of Neurology, Regional University Hospital, Lille, France, [3]Department of Clinical Neurophysiology, Regional University Hospital, Lille, France, [4]Department of Rehabilitation, Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen Medical Centre, Nijmegen, Netherlands*

P.288 Gait in patients with scans without evidence of dopaminergic deficit (swedds): comparison with Parkinson's disease and healthy controls
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P.289 Ambulatory monitoring of freezing of gait in Parkinson's disease and normal pressure hydrocephalus
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P.290 Feasibility of using the Lokomat robotic system for patients with Parkinson disease
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P.291 Long term follow up of advanced Parkinson's disease following STN deep brain stimulation: impact on gait, balance and functional activity
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P.292 The effects of stroke involving the basal ganglia on control of axial segment reorientation during turning
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P.293 Parkinson's disease patients with freezing of gait: evidence for a specific impairment at the beginning of the single-support phase of the gait cycle
Leor Gruendlinger[1], Jennifer Srygley[3], Kobi Dagan[1], Meir Plotnik[1,2], Nir Giladi[1,2], Jeffrey Hausdorff[1,3], *[1]Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [2]Tel Aviv University, Tel Aviv, Israel, [3]Harvard Medical School, Boston, MA, United States*

P.294 The influence of a secondary motor task and enhanced sensory feedback on turns in Parkinson's disease
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P.295 Freezing of gait in Parkinson's disease: perceptual influences of doorway size on freezers and non-freezers
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P.296 Differential effect of levodopa and subthalamic deep brain stimulation during dual task paradigm in Parkinson's disease
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P.297 Segmentation of activities discloses differential links between executive and locomotor functions in Parkinson's Disease patients during Timed Up and Go with a dual-task
Sabato Mellone[1], Luca Codeluppi[2], Francesca Antonelli[2], Valentina Fioravanti[2], Francesca Benuzzi[2], Laura Rocchi[1], Paolo Nichelli[2], Franco Valzania[2], Lorenzo Chiari[1], *[1]Dept. of Electronics, Computer Sciences & Systems, University of Bologna, Bologna, Italy, [2]Dept. of Clinical Neurology, University of Modena & Reggio Emilia, Modena, Italy*

P.298 Interlimb strategies for obstacle clearance following stroke
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P.299 Curved walking in individuals with stroke
Karine Duval[1], Tania Lam[1,2], *[1]University of British Columbia, Vancouver, BC, Canada, [2]International Collaboration on Repair Discoveries, Vancouver, BC, Canada*

P.300 Stepping adjustments under time-critical situations are impaired, even in mildly affected stroke patients
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P.301 Comparisons between stroke and healthy subjects with different performances in the Timed "Up and Go" test: A functional approach
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P.302 Stroke patients with lateropulsion (pusher syndrome) have a lower functional independence at discharge from the rehabilitation hospital
Eric Kerckhofs[1], Christhophe Lafosse[2], Mark Troch[2], Staf Van Hoydonck[2], M. Moeremans[2], L. Dereymaeker[2], Wim Saeys[3], Luk Vereeck[3], *[1]Vrije Universiteit Brussel, Brussels, Belgium, [2]Rehabilitation Hospital Hof ter Schelde, Antwerp, Belgium, [3]Artesis University College, Antwerp, Belgium*

P.303 Asymmetry of centre of pressure during quiet stance predicts gait performance in chronic hemiparetic patients
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P.304 Increasing intensity of treadmill walking: the effect on walking quality early following stroke
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P.305 On the relative contribution of the paretic leg to control of posture after stroke
Melvyn Roerdink[1], Alexander C. H. Geurts[2], Mirjam de Haart[3], Peter J. Beek[1], *[1]Research Institute MOVE, Faculty of Human Movement Sciences, VU University Amsterdam, Amsterdam, Netherlands, [2]Department of Rehabilitation, Radboud University Nijmegen Medical Center, Nijmegen, Netherlands, [3]Department of Rehabilitation, Academic Medical Center, University of Amsterdam, Amsterdam, Netherlands*

P.306 Analysis and comparison of electromyographic activity of gait muscles in normal young individuals with and without the use of an ankle brace developed for patients with hemiparesis
Rafael Costa[1], Aline Rosa[1], Fernanda Corrêa[1], João Corrêa[1], Claudia Oliveira[1], *[1]UNINOVE, São Paulo, Brazil*

P.307 Posture effect on chest wall motion in patients with spinal cord injury
Rong-Jiuan Liing[1], Kwan-Hwa Lin[1], Tung-Wu Lu[2], Yu-Ru Kou[3], Henrich Cheng[4], Shang-Ming Yu[5], Sheng-Chang Chen[2], *[1]School and Graduate Institute of Physical Therapy, National Taiwan Nuiversity, Taipei, Taiwan, [2]Institue of biomedical Engineering, National Taiwan University, Taipei, Taiwan, [3]Institue of Physiology, National Yang-Ming University, Taipei, Taiwan, [4]Department and Institue of Pharmacology, National Yang-Ming University, Taipei, Taiwan, [5]Department of Nursing, Central Taiwan University of Science and Technology, Taichung, Taiwan*

P.308 An exploratory analysis of lateral reach: a comparison between healthy subjects and people in the first three months after stroke
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P.309 Marked impairments in the bilateral coordination of gait in post-stroke patients

Ron Meijer[1], Meir Plotnik[2,3], Rob van Lummel[4], Erik Ainsworth[4], Esther Groot Zwaaftink[1], Michiel Punt Beng[5], Jeffrey M Hausdorff[1,6], *[1]Rehabilitation Centre Groot Klimmendaal, Arnhem, Netherlands, [2]Tel Aviv Sourasky Medical Center, Tel Aviv, Israel, [3]Bar Ilan University, Ramat Gan, Israel, [4]McRoberts, The Haugeu, Netherlands, [5]The Hague University, The Haugeu, Netherlands, [6]Tel Aviv University, Tel Aviv, Israel*

P.310 Walking along circular trajectories in chronic hemiparetic patients

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P.311 Short latency stretch reflexes do not play a major role in the premature calf muscle activity during the stance phase of gait in patients with UMN-syndrome

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P.312 Enhanced somatosensory input and gait stability

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P.313 Gait variability associated with extended periods of walking activity in patients with sub-acute stroke

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P.314 Relationship between standing and walking asymmetry among stroke survivors

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P.315 Effects of haptic information on postural stability and coordination post-stroke while walking in a virtual environment

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P.316 Gait asymmetry in the subacute and chronic stroke populations

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P.317 Head stabilization: one dimension of balance control during walking post-spinal cord injury

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P.318 Comparative study between left and right stroke using gait parameters

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P.319 Effects of a gait and mental dual task in vestibular subjects.

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P.320 Where is the "straight ahead" in unilateral vestibular loss?

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P.321 Examination of vestibular neuronitis patient's Body Tracking Test

Tomoe Yoshida[1], Masahiko Yamamoto[1], Toshiyuki Nomura[1], Satoko Ohwada[1], Rio Takazawa[1], Yoshihiro Ikemiyagi[1], Fuyuko Shigeta[1], Yuuya Tamura[1], Juichiro Takeuchi[1], *[1]Toho University Medical center Sakura Hospital, Department of Otolaryngology, 564-1 Shimoshizu, Sakura city, Chiba Prefecture,, Japan*

P.322 Peripheral vestibular damage causes impaired navigation tasks on memorized routes in humans

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P.323 Poor postural stability in children with vertigo and vergence abnormalities
Maria Pia Bucci[1], Thuan Lê[1], Sylvette Wiener-vacher[1,2], Zoï Kapoula[1], [1]*IRIS FRE 3154 CNRS, PARIS, France,* [2]*ORL Unité de Vestibulometrie, PARIS, France*

P.324 People with vestibular dysfunction do not require increased attention for step initiation
Alia Alghwiri[1], Joseph Furman[1], Mark Redfern[1], Patrick Sparto[1], [1]*University of Pittsburgh, Pittsburgh, PA, United States*

P.325 Visual vertigo and vestibulopathy: II. Oculomotor findings
Oz Zur[1,2], Elizabeth Dannenbaum[2], Ruthy Dickstein[1], Joyce Fung[2,3], [1]*University of Haifa, Haifa,Mt Carmel, Israel,* [2]*Feil & Oberfeld /CRIR Research Center Jewish Rehabilitation Hospital, Laval,Quebec, Canada,* [3]*School of Physical and Occupational Therapy McGill University, Montreal,Quebec, Canada*

P.326 Presenting symptoms of otolithic pathology in the vestibular patient
Arthur Mallinson[1], Neil Longridge[1,2], [1]*Vancouver General Hospital, Vancouver, B.C., Canada,* [2]*University of British Columbia, Vancouver. B.C., Canada*

P.327 Visual vestibular mismatch is suggestive of otolithic pathology
Arthur Mallinson[1], Neil Longridge[1,2], [1]*Vancouver General Hospital, Vancouver, B.C., Canada,* [2]*University of British Columbia, Vancouver, B.C., Canada*

P.328 Intrinsic muscle feet manipulation in carriers of acquired brain injury
Livia Valaretto[1], Marina Jacinto[1], Natalia Lima[1], Paulo Rogério Corrêa[1], Ana Elisa Stroppa[1], [1]*UNIRP - Centro Universitário de Rio Preto, São José do Rio Preto / São Paulo, Brazil*

P.329 Structured balance exercises improve dynamic balance ability for community-dwelling older women: a randomized control trial
Toshiya Urushihata[1], Kiyonao Hasegawa[1], Takashi Kinugasa[1], [1]*University of Tsukuba, Tsukuba, Ibaraki, Japan*

P.330 Myofunctional therapy in Parkinson's disease patients. A controlled randomized blind clinical study
Antonio Ferrante[1], Fabio Scoppa[1], Francesco Bruzzese[1], Silvana Guirreri[1], Doriana Nola[1], [1]*Sapienza, University of Rome, Roma, Italy*

P.331 Perception exercises involving the sole of the foot enable the oldest old to better maintain postural balance while standing
Shu Morioka[1], Hiroyuki Fujita[1], Hideki Nakano[1], Satoshi Nobusako[1], Masao Fujimoto[1], [1]*Kio University, Kitakatsuragi, Nara, Japan*

P.332 Physical training in patients with dementia - effects on motor status
Michael Schwenk[1], Tania Zieschang[1], Peter Oster[1], Clemens Becker[2], Klaus Hauer[1], [1]*Bethanien-Krankenhaus, Heidelberg, Germany,* [2]*Robert-Bosch-Krankenhaus, Stuttgart, Germany*

P.333 Biofeedback for training balance and mobility in older adults: a systematic review
Agnes Zijlstra[1], Martina Mancini[2], Lorenzo Chiari[2], Wiebren Zijlstra[1], [1]*Center for Human Movement Sciences, University Medical Center Groningen, University of Groningen, Groningen, Netherlands,* [2]*Department of Electronics, Computer Science & Systems, University of Bologna, Bologna, Italy*

P.334 Human balance improvement by supplementary information about body tilts
Frantisek Hlavacka[1], Diana Abrahamova[1], [1]*Institute of Normal and Pathological Physiology, Bratislava, Slovakia*

P.335 Visual processing and balance-recovery reactions: development and pilot testing of a "visual training" program to improve change-in-support reactions in older adults
Sandra McKay[1,2], Emily King[1,2], Kenneth Cheng[1,2], Brian Maki[1,2], [1]*Sunnybrook Health Sciences Centre, Toronto, Canada,* [2]*University of Toronto, Toronto, Canada*

P.336 Does loading at the ankle helps in rehabilitation of gait impairment due to vestibular disorder? - preliminary study -
Eigo Omi[1], Nakarin Angunsri[1], Yutaka Shibata[1], Takashi Saitoh[1], Kazuo Ishikawa[1], [1]*Akita University School of Medicine, Akita, Japan*

P.337 Automated auditory biofeedback training to enhance postural control and mobility in patients with Parkinson's disease: preliminary results from SENSACTION-AAL
Anat Mirelman[1,3], Talia Herman[1], Inbal Maidan[1], Lorenzo Chiari[4], Agnes Zijlstra[5], Simone Nicolai[6], Jeffrey Hausdorff[1,3], [1]*Laboratory for Gait and Neurodynamics, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel,* [2]*Dept of Physical Therapy, Tel Aviv University, Tel Aviv, Israel,* [3]*Harvard Medical School, Boston MA, United States,* [4]*Dept of Electronics, Computer Science and Systems, University of Bologna, Bologna, Italy,* [5]*Center of Human Movement Science, Groeningen, Netherlands,* [6]*Robert Bosch Gesellschaft fuer Medizinische Forschung, Stuttgart, Germany*

P.338 Could a multimodal sensory substitution system be used to prevent pressure sores during seated posture?
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P.339 A randomised clinical study to evaluate the employment of FES cycling in the rehabilitation of post-acute stroke patients: preliminary results
Simona Ferrante[1], Emilia Ambrosini[1], Alessandra Pedrocchi[1], Franco Molteni[2], Giancarlo Ferrigno[1], [1]*Politecnico di Milano, Dipartimento di Bioingegneria, Milano (MI), Italy,* [2]*Ospedale Valduce, Centro di Riabilitazione Villa Beretta, Lecco (LC), Italy*

P.340 Balance training positively affects postural sway dynamics and falls risk in type 2 diabetes
Steven Morrison[1], Sheri Colberg[1,2], Kathy Thomas[1], Henri Parson[2], Arthur Vinik[2], [1]*Old Dominion University, Norfolk, Virginia,, United States,* [2]*Eastern Virginia Medical School, Norfolk, Virginia, United States*

P.341 Parkinson's disease patients can improve gait performance in single and dual task contexts following gait training with music

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P.342 Electro-tactile tongue biofeedback improves balance in persons with unilateral lower limb amputation

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P.343 Changes in gait dynamics in older persons with type 2 Diabetes following exercise

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P.344 Effect of a 10 week exercise training program on reactive balance control in the frail elderly

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P.345 EEG correlates of postural audio-biofeedback

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P.346 Rationale and design of the ParkFit study: a randomized controlled trial to increase physical activity in patients with Parkinson's disease

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P.347 Markerless approach for the characterization of the standing reach

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P.348 Assessment of ascending and descending stairs: how many stairs are required?

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P.349 Balance responses to lateral perturbations in walking.

At Hof[1,2], Marije Vermerris[1], Welmoed Gjaltema[1], *[1]University of Groningen, Groningen, Netherlands, [2]University Medical Center Groningen, Groningen, Netherlands*

P.350 The effects of turns on walking speed during the 6 minute walk test

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P.351 Development of a clinical instrument to identify biomechanical characteristics and strategies adopted by stroke subjects during the Timed "Up and Go" test.

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P.352 Can an accelerometer enhance Timed-Up & Go test sensitivity among patients with Parkinson's disease?

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P.353 Postural stability of walking subjects in response to lateral perturbations

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P.354 Analysis for Stepping by Force Platform and Motion Analysis System

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P.355 Experimental study on interactions between walkers having crossing trajectories. Part I - Experimental setup, interaction starting and solving

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P.356 Experimental study on interactions between walkers having crossing trajectories. Part II. A leader-follower interaction

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P.357 Trunk control tesing using a stationary target paradigm
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P.358 No more movement, not yet posture: a method for the analysis of stabilisation following a movement
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P.359 Reduced modular control accounts for muscle activation during walking in persons with incomplete spinal cord injury
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P.360 Distinguishing among different lower limb physical activities through a Bayes' classifier applied on features extracted from single-axis accelerometer data
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P.361 Validity of an Optical Proximity Sensor (OPS) to measure foot clearance during gait
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P.362 Is gait analysis possible using only an accelerometer?
Takahiko Fukumoto[1], Hiroshi Maeoka[1], Shu Morioka[1], *[1]Kio University, Kitakatsuragi-gun, Nara, Japan*

P.363 Objective quantification of daily physical activity in children with Duchenne Muscular Dystrophy
Raluca Ganea[1], Pierre-Yves Jeannet[2], Nathalie M. Goemans[3], Virginia Spehrs-Ciaffi[2], Anisoara Paraschiv-Ionescu[1], Kamiar Aminian[1], *[1]Laboratory of Movement Analysis & Measurement (LMAM), Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland, [2]Neuropediatric Unit, Department of Pediatrics, CHUV, Lausanne, Switzerland, [3]University Hospital Gathuisberg, Pediatrics, Louvain, Belgium*

P.364 Quantifying blind rehabilitation outcomes utilizing GPS and accelerometry
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P.365 Test-retest reliability of ambulatory activity monitoring in 74 patients with Parkinson's disease
Erwin van Wegen[1], Lynn Rochester[2], Diana Jones[3], Alice Nieuwboer[4], Inge Lim[1], Katherine Baker[3], Vicky Hetherington[3], Anne-Marie Willems[4], Gert Kwakkel[1], *[1]VU University Medical Center, Amsterdam, Netherlands, [2]Newcastle University, Newcastle, United Kingdom, [3]Northumbria University, Newcastle, United Kingdom, [4]Katholieke Universiteit Leuven, Leuven, Belgium*

P.366 Evaluation of postural instability in diabetic patients with peripheral neuropathy using accelerometers
Katia Turcot[1], Lara Allet[1], Pierre Hoffmeyer[1], Alain Golay[1], Stéphane Armand[1], *[1]Hospital University of Geneva, University of Geneva, Geneva, Switzerland*

P.367 Video-based validation of single-sensor accelerometry for detecting lying, sitting, standing and walking in older adults and Parkinson's disease patients
Baukje Dijkstra[1], Yvo Kamsma[1], Wiebren Zijlstra[1], *[1]University of Groningen, Groningen, Netherlands*

P.368 Assessment of postures and movements during daily life with clothes attached sensors
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P.369 Self-reported activity restriction due to fear of falling: how objective ?
Estelle Martin[1], Kamiar Aminian[2], Chantal Piot-Ziegler[3], Raluca Ganea[2], Anisoara Ionescu[2], Constanze Hoskovec[1], Stephane Rochat[1], Christophe Bula[1], *[1]Service of Geriatric Medicine, CHUV & CUTR Sylvana, Epalinges, Switzerland, [2]EPFL, Laboratory of Movement Analysis and Measurement, Lausanne, Switzerland, [3]UNIL, Faculty of Psychology, Lausanne, Switzerland*

P.370 Pervasive informatics and persistent actimetric information in health smart homes: different approaches
Yannick Fouquet[1], Nicolas Vuillerme[1], Jacques Demongeot[1], *[1]TIMC-IMAG lab, La Tronche, France*

P.371 Wearable system for foot kinematics and pressure measurements during gait
Marco Benocci[1], Laura Rocchi[1], Elisabetta Farella[1], Luca Benini[1], Lorenzo Chiari[1], *[1]University of Bologna, Bologna, Italy*

P.372 Quantitatively assessing foot placement during real-world rollator use
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P.373 Detection of lying, sitting, standing and locomotion under free living conditions: cross-validation of a one sensor versus multiple sensor approach.
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P.374 Accelerometry-based prediction of center of pressure during dynamic balance tasks
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P.377 Posterior shank resistance modifies the biomechanics of sit to stand
Alia Antonucci-Alter[1], Denis Brunt[1], Justin Pfruender[1], Blaise Williams[1], [1]*East Carolina University, Greenville NC, United States*

P.378 Gait assessment of processed socks with ankle taping
Hiroshi Maeoka[1], Takahiko Fukumoto[1], Kenji Sho[2], Toshio Ando[2], Hidenori Miura[3], Atsushi Matsuo[1], Makoto Hiyamizu[1], Koji Shomoto[1], Syu Morioka[1], [1]*Kio University, Kitakatsuragi-gun, Nara, Japan,* [2]*Okamoto Corporation, Kitakatsuragi-gun, Nara, Japan,* [3]*Hakuaikai Memorial Hospital, Tokushima-shi, Tokushima, Japan*

P.380 Examination of posture in transfemoral amputees: the use of 3-D back shape measurement
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P.381 Effect of leg length discrepancy on load distribution in transfemoral amputees
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P.382 Modern above-knee prostheses: the effect of yielding and bouncing on the biomechanics of gait
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P.383 Indications for electronic knees for above-knee amputees: clinical and biomechanical aspects
Juliane Wühr[1], Ludger Linkemeyer[1], Burkhard Drerup[1], Hans-Henning Wetz[1], [1]*Klinik für Technische Orthopädie, Münster, Germany*

P.384 The assessment of limits of stability in transtibial amputees in relation to the prosthesis and prosthetic foot alignment
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