

Full Name

PAVAN DAVIDE

E-mail

pavandav@dei.unipd.it

Nationality

Italian

Date of Birth

25/11/1985

WORKING EXPERIENCE

- Date (from – to) 10/2019 – Ongoing
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Applicazione dell'analisi muscoloscheletrica in OpenSim durante il cammino. (Bando 80/2019, Prof.ssa Zimi Sawacha)

- Date (from – to) 04/2019 – 09/2019
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Analisi biomeccanica dell'arto inferiore tramite analisi del movimento. (Bando 19/2019, Prof.ssa Zimi Sawacha)

- Date (from – to) 01/2019 – 04/2019
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Analisi muscoloscheletrica del *drop jump* per la prevenzione della rottura dell'ACL. (Bando 134/2018, Prof.ssa Zimi Sawacha)

- Date (from – to) 09/2018 – 12/2018
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Applicazione dell'analisi del movimento alla prevenzione dell'infortunio da LCA. (Bando 79/2018, Prof.ssa Zimi Sawacha)

- Date (from – to) 02/2018 – 05/2018
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Applicazione dell'analisi del movimento alla progettazione di safety shoes. (Bando 8/2018, Prof.ssa Gianna Toffolo)

- Date (from – to) 10/2017 – 02/2018
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Applicazione dell'analisi del movimento alla progettazione di safety shoes. (Bando 107/2017, Prof.ssa Gianna Toffolo)

- Date (from – to) 11/2016 – 03/2017
 - Name and address of the employer Dept. of Information Engineering, Università degli Studi di Padova, Padova, Italy
 - Working sector University, research, biomechanics
 - Work type **Research Bursary**
 - Principal occupations and responsibility Valutazione degli effetti sul cammino dei soggetti affetti da Morbo di Parkinson dell'applicazione del dispositivo Equistasi nella riabilitazione neurologica. (Bando 76/2016, Prof.ssa Gianna Toffolo)

- Date (from – to) 06/2016 – 08/2016
- Name and address of the employer Dept. of Neurosciences, Università degli Studi di Padova, Padova, Italy
- Working sector University, research, biomechanics
- Work type **Research Bursary**
- Principal occupations and responsibility Gait analysis bambini/ragazzi affetti da sindrome di Dravet. (Prot 910/2016, Prof. Stefano Masiero)

THESIS CO-SUPERVISING

14 – Human Movement Sciences, BSc;
 8 – Science and Techniques for Adapted Motor Activity, MSc;
 6 – Biomedical Engineering, BEng;
 5 – Bioengineering, MEng.

SEMINARS

Pre-Congress course: SIAMOC – 09/11/2019
 Biomeccanica del ginocchio dopo ricostruzione legamento crociato anteriore

Università degli Studi di Padova - 02/11/15
 Élite rugby players motion analysis during the tackle: technique and injury prevention, Part 1
 Università degli Studi di Padova - 16/11/15
 Élite rugby players motion analysis during the tackle: technique and injury prevention, Part 2
 Università degli Studi di Padova - 30/11/15
 Élite rugby players motion analysis during the tackle: technique and injury prevention, Part 3
 Università degli Studi di Padova - 07/12/15
 Élite rugby players motion analysis during the tackle: technique and injury prevention, Part 4

EDUCATION AND FORMATION

- Date 10/2017 – Ongoing
- Name and type of educational or training institution **Information Engineering, PhD**
 Doctoral school in Information Engineering,
 Università degli Studi di Padova, Padova, IT
- Main subjects/professional skills studied “Evaluation of task specific ACL injury risk, using kinetic and kinematic data integrated with musculoskeletal modelling” (PhD Student without bursary)
- Achieved qualification Doctor of Philosophy (To be awarded)
- National classification level (if applicable) ///
- Date 01/2019 – 07/2019
- Name and type of educational or training institution **Traineeship: Musculoskeletal Modelling for ACL injury prevention**
 Katholieke Universiteit Leuven, Leuven, BE
- Main subjects/professional skills studied
 - Musculoskeletal modelling;
 - Model intrinsic properties (rigid bodies, musculotendinous apparatus, ligaments);
 - Model’s reliability evaluation for task-specific analysis;
 - Muscle Atlas Project Client: MSM and meshing for subject-specific models.
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- Achieved qualification ///
- National classification level (if applicable) ///

- Date 09/2016 – 09/2017
- Name and type of educational or training institution **Sports Engineering, MSc**
Sheffield Hallam University, Sheffield, UK
- Main subjects/professional skills studied
 - Computer Aid Design
 - Finite Elements Modelling;
 - Computational Fluid Dynamics;
 - Data analysis and statistical inference;
 - Numerical analysis programming;
 - Research Methods;
 - Mechanics of Sport Equipment;
 - Biomechanics and Motion Analysis.
- Achieved qualification Master of Science (Merit – 67/100)
- National classification level (if applicable) Level 7 – UK.
- Date 05/2017 – 06/2017
- Name and type of educational or training institution **Specializing course: Special Topics in Sports Engineering**
Technische Universiteit Delft, Delft, NL
Vrije Universiteit Amsterdam, Amsterdam, NL
- Main subjects/professional skills studied
 - Sport equipment design and materials;
 - Sport equipment aerodynamics;
 - Physiology and Thermoregulation;
 - Power Modelling;
 - Technological Doping;
 - Cyclist Biomechanics;
 - Technology support to sport teams.
- Achieved qualification ///
- National classification level (if applicable) ///
- Date 02/2017 – 02/2017
- Name and type of educational or training institution **Workshop: Foot and Plantar Pressure**
Oxford Gait Laboratory
Nuffield Orthopaedic Centre, Oxford, UK
- Main subjects/professional skills studied
 - Oxford Foot Model and marker positioning;
 - Kinematic results interpretation;
 - Plantar pressure data acquisition;
 - Plantar pressure data masking;
 - Kinematic data and Plantar pressure data integration;
 - Clinical setup.
- Achieved qualification ///
- National classification level (if applicable) ///
- Date 10/2015 – 06/2016
- Name and type of educational or training institution **Post-Lauream Traineeship**
Bioengineering of Movement, Dept. of Information Engineering
Università degli Studi di Padova, Padova, IT
- Main subjects/professional skills studied
 - Experimental setups definition;
 - Software for bioengineering of movement;
 - Data acquisition;

- Achieved qualification
- National classification level (if applicable)

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- Date
- Name and type of educational or training institution
- Main subjects/professional skills studied

09/2009 – 09/2015
Human Movement Sciences, BSc
 Università degli Studi di Padova, Padova, IT

- Anatomy;
- Physiology;
- Psychology;
- Sports medicine and pharmacology;
- Traumatology;
- Neuropsychology of motor control;
- Biomechanics and Motion analysis.

- Achieved qualification
- National classification level (if applicable)

Laurea Triennale (99/110)
L22

PERSONAL COMPETENCES AND EXPERTISE

NATIVE LANGUAGE

Italian

OTHER LANGUAGES

English

- Reading
- Writing

Excellent
Excellent
Excellent

- Oral expression

RELATIONAL COMPETENCES AND EXPERTISE

- Work groups organization;
- Teamwork;
- Multidisciplinary working groups.

ORGANIZATIONAL COMPETENCES AND EXPERTISE

- Projects supervision;
- On field tests organization;
- Workflow organization;
- Participants recruitment.

TECHNICAL COMPETENCES AND EXPERTISE

- Informatics:
- Matlab (R2013a – R2019a);
 - Smart Capture, Smart Tracker, Smart Analyzer (BTS);
 - Cortex (Motion Analysis Corporation);
 - Pedar X Online, Pedar Steps, Emed Link (Novel);
 - MOTO-NMS;
 - OpenSim (v3.2 - v4.0);
 - EMG-Analyzer (BTS);
 - EMGworks (Delsys);
 - Visual 3D (C-Motion);
 - Phantom High-Speed Cameras Software Pack (Vision Research);
 - SPSS Statistics (IBM);
 - SolidWorks;
 - ANSYS, COMSOL.

Techniques:

- Geometry and simulation (CAD, FEM, CFD);
- Qualitative and quantitative research methods;
- Motion data acquisition using specific equipment;
- Kinematic and kinetics data elaboration;
- Plantar pressure data elaboration

Specific equipment for motion analysis:

- Optoelectronic systems: Smart BTS (6, 8, 12 cameras), Motion Analysis Corporation;
- Video Motion Capture: commercial cameras (GoPro Hero3, 3+);
- Forceplates: Bertec (FP4060), Kistler (9281E);
- Plantar pressure: Novel (PedarX), SensorMedica (FlexinFit);
- Electromyography: BTS (FreeEMG 1000), Delsys (Trigno™ Mobile).

DRIVING LICENCE

A, B

AWARDS

Student Travel Grant 2017

De Luca Foundation

Winner of the "De Luca Foundation 2017 Student Travel Grant", to cover the expenses for the presence at the congress of the International Society of Biomechanics, Brisbane (AU)

Best Paper Award

International Academy, Research, and Industry Association (IARIA)

Peppe, A., P. Paone, S. Paravati, M. Giulia Baldassarre, L. Bakdounes, F. Spolaor, A. Guiotto, **D. Pavan**, Z. Sawacha, D. Clerici, N. Cau, A. Mauro, G. Albani, M. Avenali, G. Sandrini, C. Tassorelli, D. Volpe "Proprioceptive Focal Stimulation (Equistasi®) May Improve Motor Symptoms in Moderate Parkinson's Disease Patients. Italian Multicentric Preliminary Open Study" IV International Conference on Smart Portable, Wearable, Implantable and Disability-oriented Devices and Systems (SPWID 2018) – 22nd to 26th July 2018, Barcelona (ES)

PUBLICATIONS

INTERNATIONAL JOURNALS

Volpe, D., **D. Pavan**, M. Morris, A. Guiotto, R. Iansek, S. Fortuna, G. Frazzitta, Z. Sawacha, "Under Water Gait Analysis in Parkinson's disease" *Gait and Posture* vol.52, pp. 87-94, 2017, DOI: 10.1016/j.gaitpost.2016.11.019

INTERNATIONAL CONGRESSES

Pavan, D., F. Spolaor, A. Guiotto, G. Sbrocco, Z. Sawacha Pushoff Forces and Posture Analysis of Tackle in Elite Rugby Players: A Pilot Study. International Society of Biomechanics Book of Abstract, Ref. AS 0264. 12th to 16th July 2015, Glasgow (UK)

Pavan, D., F. Spolaor, G. Sbrocco, V. Costa and Z. Sawacha. "Knee Injury prevention in rugby players can be addressed through motion capture and plantar pressure analysis: a pilot study" Proceedings XVI SIAMOC Conference, Ref. P-11. 30th September-3rd October 2015, Padova (IT)

Pavan, D., M. Dainese, F. Cibin, A. Guiotto, Z. Sawacha. "Prevention and screening tool for ACL injury based on kinematics, plantar pressure and EMG analysis" *Gait & Posture* vol.49S, pp. 87-88, 2016, DOI: 10.1016/j.gaitpost.2016.07.145

Pavan, D., F. Cibin, A. Guiotto, A. Rizzi, E. Roma, A. Colangelo, T. Casagrande, G. Sbrocco, Z. Sawacha. "ACL injury risk during Rugby tackle can be evaluate through an on-field task-specific analysis: a pilot study" *Gait & Posture* vol.49 no. S1, pp. S18-S19, 2016, DOI: 10.1016/j.gaitpost.2016.07.049

Volpe, D., **D. Pavan**, A. Guiotto, F. Fichera, V. Scalchi, M. Morris, Z. Sawacha. "Effect of underwater gait training on Parkinson disease 3D underwater and on land gait analysis" *Gait & Posture*, vol.49 no. S1, pp. S25-S26, 2016, DOI: 10.1016/j.gaitpost.2016.07.060

Pavan, D., M. Dainese, F. Cibin, A. Guiotto, Z. Sawacha "The Vertical Drop Jump Test for ACL injuries prevention can be improved through kinematics, plantar pressure and EMG analysis" Proceedings XVI SIAMOC Conference, Ref: PM-32. 5th to 8th October 2016, Milano (IT)

Volpe, D., **D. Pavan**, A. Guiotto, F. Fichera, V. Scalchi, M. Morris, Z. Sawacha "Underwater gait training improves gait characteristic in Parkinson disease patients" *Gait & Posture* vol.49 no. S2, pp.162, 2016, DOI: 10.1016/j.gaitpost.2016.07.220

Pavan, D., A. Colangelo, F. Cibin, A. Guiotto, G. Voltolina, T. Casagrande, A. Sgorlon, G. Sbrocco, Z. Sawacha "Centre of mass acceleration: an on-field efficiency parameter for rugby tackle". Book of Abstract International Society of Biomechanics, 23rd to 27th July 2017, Brisbane (AU)

Pavan D., F. Cibin, A. Guiotto, A. Colangelo, F. Spolaor, T. Casagrande, G. Sbrocco, A. Pavanello, Z. Sawacha "Effectiveness and injury prevention during rugby tackle: an on-field, biomechanical based assessment". Book of Abstract International Society of Biomechanics, 23rd to 27th July 2017, Brisbane (AU)

Pavan D., F. Cibin, A. Guiotto, A. Colangelo, G. Voltolina, F. Spolaor, A. Sgorlon, A. Pavanello, T. Casagrande, G. Sbrocco, Z. Sawacha "The rugby side-on tackle: technique comparison between young and senior elite athletes" Book of Abstract International Society of Biomechanics, 23rd to 27th July 2017, Brisbane (AU)

Spolaor, F., D. Volpe, **D. Pavan**, A. Guiotto, F. Fichera, V. Scalchi, P. Torresin, Z. Sawacha "Surface EMG analysis and joint kinematics in Parkinson disease patients before and after underwater gait training" Book of Abstract International Society of Biomechanics, 23rd to 27th July 2017, Brisbane (AU)

Pavan D., G. Voltolina, F. Cibin, A. Guiotto, A. Colangelo, F. Spolaor, T. Casagrande, G. Sbrocco, O. Collodo, A. Sgorlon, Z. Sawacha "The rugby side-on tackle: technique comparison between elite seniors and young international elite athletes" Book of Abstract International Society of Biomechanics, 23rd to 27th July 2017, Brisbane (AU)

Cibin, F., **D. Pavan**, A. Guiotto, F. Spolaor, A. Colangelo, A. Pavanello, M. Baldo, T. Casagrande, G. Sbrocco, Z. Sawacha "Pre-ACL surgery drop-jump test as assessment of injury related biomechanics alterations". *Gait & Posture*, vol. 57, no. S1, 2017, pp. 317-318, DOI: 10.1016/j.gaitpost.2017.06.440.

Pavan, D., Cibin F., A. Guiotto, F. Spolaor, A. Colangelo, A. Pavanello, A. Sgorlon, T. Casagrande, G. Sbrocco, Z. Sawacha "Differences in Tackle biomechanics between elite young and adult Rugby players". *Gait & Posture*, vol. 57, no. S1, 2017, pp. 315-316, DOI: 10.1016/j.gaitpost.2017.06.439

Spolaor, F., D. Volpe, **D. Pavan**, A. Guiotto, F. Fichera, P. Torresin, E. Fantinato, Z. Sawacha "Surface EMG analysis in Parkinson disease patients before and after underwater gait training" *Gait & Posture*, vol. 57, no. S1, 2017, pp. 315-316, DOI: 10.1016/j.gaitpost.2017.06.285

Guiotto, A., E. Vialetto, **D. Pavan**, A. Gracco, Z. Sawacha "Analysis of plantar pressure distribution on paediatric subjects: a pilot study" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Guiotto, A., D. Volpe, F. Urru, **D. Pavan**, Z. Sawacha "Underwater vs laboratory based posturographic analysis in Parkinson Disease" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Cibin, F., **D. Pavan**, A. Guiotto, F. Spolaor, A. Colangelo, A. Pavanello, M. Baldo, T. Casagrande, G. Sbrocco, Z. Sawacha "Biomechanics evaluation of drop jump execution before ACL's surgery" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Volpe, D., A. Guiotto, F. Urru, **D. Pavan**, Z. Sawacha "Effects of hydrotherapy on spine alignment and mobility in Parkinson's disease patients" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Sawacha, Z., F. Cibin, **D. Pavan**, A. Guiotto, F. Spolaor "Repeatability and reliability of "ACL quick check™": a prevention and screening tool for "on the field" ACL injury assessment" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Pavan, D., F. Cibin, A. Guiotto, F. Spolaor, A. Colangelo, G. Sbrocco, T. Casagrande, A. Pavanello, Z. Sawacha "Development of a biomechanical-based tool for ACL injury prevention in the Rugby tackle: on field evaluation of senior elite athletes" Italian Society of Clinical Motion Analysis (SIAMOC), 4th to 7th October 2017, Torino (IT)

Dunn, M., **D. Pavan**, P. Ramirez, S. Rava, A. Shahrin "An automated method to extract three-dimensional position data using an infrared time-of-flight camera" Procedia Engineering – International Sports Engineering Association (ISEA), 26th to 29th March 2018, Brisbane (AU)

Pavan, D., F. Cibin, A. Guiotto, A. Colangelo, F. Spolaor, T. Casagrande, G. Sbrocco, A. Pavanello, Z. Sawacha "On-field assessment of the rugby tackle for ACL injury prevention and technique enhancement" National Congress of Bioengineering (GNB), 25th to 27th June 2018, Milano (IT).

Pavan, D., F. Cibin, A. Guiotto, F. Spolaor, A. Sgorlon, A. Pavanello, T. Casagrande, G. Sbrocco, Z. Sawacha "The rugby side-on tackle: on-field comparison between young and senior international élite athletes for technique enhancement and injury prevention" World Congress of Biomechanics (WCB), 8th to 12th July 2018, Dublin (IRL).

Spolaor, F., A. Guiotto, F. Cibin, **D. Pavan**, Z. Sawacha "Investigating the basic physiological and biomechanical principles underneath changes in posture during different lifting task: a pilot study combining plantar pressure and muscles activation analysis" World Congress of Biomechanics (WCB), 8th to 12th July 2018, Dublin (IRL).

Pavan, D., F. Cibin, A. Guiotto, F. Spolaor, A. Sgorlon, A. Pavanello, T. Casagrande, G. Sbrocco, Z. Sawacha "Young and senior international élite athletes on-field comparison for technique enhancement and Injury prevention during rugby side-on tackle" European College of Sport Science (ECSS), 4th to 7th July 2018, Dublin (IRL).

M. Dainese, **Pavan, D.**, F. Cibin, A. Guiotto, Z. Sawacha. "Screening and prevention tool for ACL injury in basketball players based on kinematics, plantar pressure and EMG analysis" European College of Sport Science (ECSS), 4th to 7th July 2018, Dublin (IRL).

Peppe, A., P. Paone, S. Paravati, M. Giulia Baldassarre, L. Bakdounes, F. Spolaor, A. Guiotto, **D. Pavan**, Z. Sawacha, D. Clerici, N. Cau, A. Mauro, G. Albani, M. Avenali, G. Sandrini, C. Tassorelli, D. Volpe "Proprioceptive Focal Stimulation (Equistasi®) May Improve Motor Symptoms in Moderate Parkinson's Disease Patients. Italian Multicentric Preliminary Open Study" IV International Conference on Smart Portable, Wearable, Implantable and Disability-oriented Devices and Systems (SPWID 2018) – 22nd to 26th July 2018, Barcelona (ES)

Spolaor, F., A. Guiotto, **D. Pavan**, L. Arab Yaghoubi, A. Peppe, P. Paone, Z. Sawacha, D. Volpe "Effects of the Equistasi® device treatment in gait parameters of patient with Parkinson's disease" European Society for Movement Analysis in Adults and Children (ESMAC) 24th to 29th September 2018, Prague (CZ).

Pavan, D., F. Cibin, A. Guiotto, F. Spolaor, Z. Sawacha "Biomechanical evaluation of single leg landing in élite athletes before and after ACL surgery" European Society for Movement Analysis in Adults and Children (ESMAC) 24th to 29th September 2018, Prague (CZ).

Spolaor, F., A. Guiotto, **D. Pavan**, L. Arab Yaghoubi, A. Peppe, P. Paone, Z. Sawacha, D. Volpe "The neurorehabilitation device Equistasi® impacts positively on the gait of Parkinson's disease subjects" Italian Society of Clinical Motion Analysis (SIAMOC) 3rd to 6th October 2018, Firenze (IT).

Cibin, F., **D. Pavan**, A. Guiotto, F. Spolaor, M. Cesana, E. Furlan, T. Casagrande, Z. Sawacha "The single leg drop-landing before and after ACL surgery as biomechanical evaluation in elite Athletes" Italian Society of Clinical Motion Analysis (SIAMOC) 3rd to 6th October 2018, Firenze (IT).

Sawacha, Z., F. Spolaor, **D. Pavan**, A. Guiotto, R. Polli, A. Murgia "Gait Analysis in Children with Fragile Syndrome: a Pilot Study" Italian Society of Clinical Motion Analysis (SIAMOC) 3rd to 6th October 2018, Firenze (IT)

Spolaor F., A. Guiotto, F. Cibin, **D. Pavan**, Z. Sawacha "Lifting biomechanics: a combined approach of plantar pressure and surface electromyographic analysis" Italian Society of Clinical Motion Analysis (SIAMOC) 3rd to 6th October 2018, Firenze (IT).

Cibin F., **D. Pavan**, A. Guiotto, F. Spolaor, M. Cesana, E. Furlan, G. Sanguin, Z. Sawacha "A biomechanical screening tool for elite athletes after ACL surgery" European Society for Movement analysis in Adults and Children, 23th to 28th September 2019, Amsterdam (NL).

Cibin F., **D. Pavan**, G. Trevisanato, D. Favaretto, S. Franchetti, F. Spolaor, S. Tamiello, Z. Sawacha "Basketball side cut and jumping shot biomechanical analysis as ACL injury screening" European Society for Movement analysis in Adults and Children, 23th to 28th September 2019, Amsterdam (NL).

Ciniglio A., F. Cibin, **D. Pavan**, A. Guiotto, F. Spolaor, Z. Sawacha "Comparison between field and laboratory analysis in ACL injuries prevention: a pilot study" European Society for Movement analysis in Adults and Children, 23th to 28th September 2019, Amsterdam (NL).

Sawacha Z., F. Spolaor, F. Cibin, W. Slasko, **D. Pavan**, A. Guiotto, R. Polli, M. Ricca, A. Murgia "Gait analysis in children with fragile x syndrome: could this become a measurable outcome?" European Society for Movement analysis in Adults and Children, 23th to 28th September 2019, Amsterdam (NL).

Pavan D., A. Guiotto, F. Spolaor, F. Cibin, D. Giovannini, M. Cesana, Z. Sawacha "Figure skating axel jump: relationship between performance and injury risk assessment." European Society for Movement analysis in Adults and Children, 23th to 28th September 2019, Amsterdam (NL).

Sawacha Z., F. Spolaor, F. Cibin, W. Slasko, **D. Pavan**, A. Guiotto, R. Polli, M. Ricca, A. Murgia "Gait analysis in children with x fragile syndrome: a combined EMG and markerless approach" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Pavan D., A. Guiotto, F. Spolaor, F. Cibin, D. Giovannini, M. Cesana, Z. Sawacha "Performance and injury risk assessment in figure skating: axel jump biomechanics" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Cibin F., G. Maistrello, F. Spolaor, A. Guiotto, **D. Pavan**, Z. Sawacha "Comparison between female and male professional field hockey players during on field 20 m sprint run with particular reference to the effect of handling a stick." International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Spolaor F., A. Guiotto, S. Raunich, F. Cibin, **D. Pavan**, Z. Sawacha "Biomechanical analysis of lifting tasks in healthy and low back pain affected subjects" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Colangelo A., **D. Pavan**, F. Cibin, F. Spolaor, A. Guiotto, M. Cesana, E. Furlan, T. Casagrande, Z. Sawacha "Quantification of the role of muscle forces in knee joint mechanics in subjects with ACL injury before and after surgery" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Guiotto A., F. Spolaor, **D. Pavan**, M. Durante, A. Peppe, Z. Sawacha, D. Volpe "Effects of the Equistasi® neurological rehabilitation device on the gait of Parkinson's disease patients" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Cibin F., **D. Pavan**, A. Guiotto, F. Spolaor, M. Cesana, E. Furlan, Z. Sawacha "The single leg drop landing test as a biomechanical screening tool in elite athletes after ACL surgery" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Cibin F., **D. Pavan**, G. Trevisanato, S. Franchetti, F. Spolaor, S. Tamiello, Z. Sawacha "Basketball biomechanics: side cut as noncontact ACL injury screening" International Society of Biomechanics, 31st July to 4th August 2019, Calgary (CA).

Cibin F., **D. Pavan**, G. Trevisanato, S. Franchetti, F. Spolaor, S. Tamiello, Z. Sawacha "Biomechanical analysis of the side cut in basketball athletes as noncontact ACL injury screening" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

Sawacha Z., F. Spolaor, F. Cibir, W. Slasko, **D. Pavan**, A. Guiotto, R. Polli, M. Ricca, A. Murgia "Surface EMG during gait in children with fragile X syndrome: could this become a measurable outcome?" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

Guiotto A., F. Spolaor, M. Romanato, **D. Pavan**, A. Peppe, D. Volpe, Z. Sawacha "The neurorehabilitation device Equistasi® can induce changes in Parkinson's disease patients' ankle joints kinematics and kinetics" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

Cibir F., G. Maistrello, F. Spolaor, A. Guiotto, **D. Pavan**, Z. Sawacha "Sex differences in professional field hockey players during on field 20 m sprint run with particular reference to the effect of handling a stick" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

Ciniglio A., F. Cibir, **D. Pavan**, A. Guiotto, F. Spolaor, M. Iozzino, E. Furlan, Z. Sawacha "Can laboratory-based ACL screening efficiently portray on the field knee loading? A pilot study" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

Cibir F., **D. Pavan**, A. Guiotto, F. Spolaor, M. Iozzino, F. Soldo, M. Cesana, E. Furlan, G. Sanguin, G. Biondi, Z. Sawacha "Quantitative testing after ACL surgery: a biomechanical assessment tool before elite athletes return to competition" Italian Society of Clinical Motion Analysis (SIAMOC) 9th to 12th October 2019, Bologna (IT).

PATENTS

Sawacha, Z., **D. Pavan**, F. Cibir, G. Sbrocco, A. Guiotto, C. Cobelli, F. Spolaor "Method and apparatus for detecting biomechanical and functional parameters of the knee", 28th April 2017

ADDITIONAL INFORMATION

Italian Rugby Federation (FIR) – First Level Coach.

Member of the International Society of Biomechanics (ISB).

Member of the European Society for Movement Analysis in Adults and Children (ESMAC)

Member of the European Society of Biomechanics (ESB).

Member of the European College of Sport Science (ECSS).

Member of the Italian Society of Clinical Movement Analysis (SIAMOC).

Padova, 22/01/2020

