



CONFERENCE PROGRAMME

THE 19TH CONFERENCE OF BALTIC SOCIETY OF SPORT SCIENCES

*“NEW TRENDS IN SPORT SCIENCE
AND PHYSICAL ACTIVITY”*



Józef Piłsudski University of Physical
Education in Warsaw

University College in Biała Podlaska

Biała Podlaska, Poland • 9–11 September 2026





19th Conference of Baltic Society of Sport Science

— NEW TRENDS IN SPORT SCIENCE AND PHYSICAL ACTIVITY —



Wednesday 9th September

8.00 – 21.00	Reception desk
18.00 – 21.00	Welcome meeting

Thursday 10th September

8.00 – 16.00	Reception desk
8.45 – 9.00	Opening ceremony – Auditorium I
9.00 – 10.30	1st Plenary session – Auditorium I (J. Porter, T. Niżnikowski)
9.00	Duarte Araújo – <i>“The constraints-led approach to sport training: Understanding performance and practice”</i>
9.30	Marius Brazaitis – <i>“Heat and cold to manage recovery”</i>
10.00	Miguel Moreira – <i>“Sport characterisation and competition constraints analysis as a performance analysis tool”</i>
10.30 – 11.30	1st Session – Auditorium I (D. Sekulic, A. Liepa)
10.30	<i>“Validation of a Lithuanian-Language Version of the Brunel Mood Scale: The BRUMS-LTU”</i> – Lisinskiene A., Skurvydas A., Majauskiene D., Lochbaum M., Terry P.C., Valanciene D., Cooper S.
10.40	<i>“Development and normative standardization of a long-term youth physical readiness assessment system in the context of declining physical fitness and emerging security challenges”</i> – Juodeikytė V., Vengalė A., Sitkevičiūtė L., Riškus J., Trinkūnas E., Rutkauskaitė R., Šilinskas V., Bradauskienė K., Mickevičius M., Mickevičienė D., Saveikis D., Lapinskas E., Deliautaitė K., Čekanauskienė A., Sviderskis M., Lukonaitienė I.
10.50	<i>“Acute and training related changes in oxidative stress markers in women with depression exposed to normobaric hypoxic exercise”</i> – Kusmierczyk J., Wiecek M., Szymura J., Lipowska M.
11.00	<i>“Relationship between adolescents' physical activity and mental health literacy”</i> – Motiejūnaitė K., Šukys S.
11.10	<i>“High-velocity resistance training at moderate intensity in the prevention of sarcopenia in postmenopausal women”</i> – Ossowski Z., Szaro-Truchan M., Krasowska K., Tomczyk M., Michałowska-Sawczyn M., Česnaitienė V.J., Perzanowska E., Litwiniuk A., Humińska-Lisowska K.

11.20	<i>"An artificial intelligence framework for emotion and stress monitoring in athletes"</i> – Boobani B., Skilters J., Makaruk H.
10.30 – 11.30	1st Session – Auditorium II (P. Purge, M. Moreira)
10.30	<i>"Beyond peak force: Integrating critical force and anaerobic work capacity for physiological profiling of sport climbers"</i> – Banaszczyk J.
10.40	<i>"Motor learning in women's artistic gymnastics: The effectiveness of verbal feedback"</i> – Biegajło M., Nogal M., Niżnikowski T.
10.50	<i>"Carbon-plated footwear reduces the physiological cost of a 30-minute submaximal run in elite long-distance runners"</i> – Brūvere D.D., Bernāns E.
11.00	<i>"Timing-dependent determinants of adaptive foot placement during obstacle avoidance gait"</i> – Tatsuya H., Agris L., Issei O.
11.10	<i>"Medium-chain fatty acid supplementation improves muscle function beyond alterations in substrate utilisation: A systematic review and meta-analysis"</i> – Xu N., Sviderskis M., Fokin A., Ratkevičius A., Minderis P., Gray S.
11.20	<i>"Verbal feedback and the effectiveness of learning fundamental motor skill"</i> – Nogal M., Biegajło M., Niżnikowski T.
11.30 – 12.00	Coffee break (3rd floor)
12.00 – 13.00	2nd Plenary session – Auditorium I (H. Saramento, M. Brazaitis)
12.00	Damir Sekulić – <i>"Open space and closed years. Effects of multicomponent exercise in public parks in older females"</i>
12.30	Priit Purge – <i>"Changes in athletes' performance, aerobic capacity, and body composition and their relationship with competition results using the example of the Estonian rowing team"</i>
13.00 – 14.00	2nd Session – Auditorium I (A. Gullich, R. Paulauskas)
13.00	<i>"Lactate profile, VO₂peak, and blood pressure responses in maximal exercise testing in grassroots athletes stratified by Task Force 8: Classification of sports categories"</i> – Bumbiere K., Ušacka L., Plakane L.
13.10	<i>"Adaptive responses during a brief gradual exposure to cold stimulus, and its effects on health-related indicators"</i> – Culhaoglu A.
13.20	<i>"Energy balance, physical activity and fasting blood hormones associations of Estonian high level junior athletes and non-athletes"</i> – Kängsepp A., Jürimäe J., Rimmel L., Tillmann V., Purge P.
13.30	<i>"The effect of physical activity on mental fatigue and memory during a simulated office-like workday in pre-retirement age: Preliminary results"</i> – Krasinske E., Mazuolytė-Binderiene A., Šatas A., Brazaitis M.

13.40	<i>"Normobaric hypoxic training enhances erythrocyte antioxidant enzyme activity in women with depression"</i> – Lipowska M., Szymura J., Wiecek M., Kusmierczyk J.
13.50	<i>"Changes in anthropometric parameters and muscle strength in women aged 60+ in response to different forms of physical activity"</i> – Sochacka M., Leźnicka K., Maciejewska-Skrendo A.
13.00 – 14.00	2nd Session – Auditorium II (W. Schollhorn, A. Litwiniuk)
13.00	<i>"A physical activity with integrated breathing exercises for reducing vocal cord fatigue in teachers"</i> – Steinmane V., Fernate A.
13.10	<i>"Effects of medium-chain fatty acids on body weight regain and glucose tolerance following weight loss induced by semaglutide or caloric restriction in mice"</i> – Sviderskis M., Minderis P., Venckunas T., Gray S., Ratkevicius A.
13.20	<i>"Effects of superficial head–neck cooling on neuromuscular fatigue across motor task structures"</i> – Daukšaitė G., Eimantas N., Brazaitis M.
13.30	<i>"In adolescent football players, unlike adults, balance is not linked to foot kinaesthetic sensitivity"</i> – Pontaga I., Liepa A., Abolins V., Slaidins K.
13.40	<i>"Resistance training habits in relation to dynamic and reactive strength indices in recreationally active individuals: preliminary findings"</i> – Ruza Z., Cuhalovs R., Plakane L.
13.50	<i>"Effects of muscle–tendon mechanical and architectural characteristics on female drop jump performance across varying heights"</i> – Satkunskiene D., Kunauske A., Genitrini M., Salatkaitė-Urbone S.
14.00 – 15.00	Lunchtime (3rd floor)
15.00 – 16.30	3rd Plenary session – Auditorium I (D. Araujo, J. Grants)
15.00	Arne Güllich – <i>"Successful talent development – Assumptions and evidence"</i>
15.30	Hugo Sarmiento – <i>"Inside elite talent development: Football & futsal perspectives"</i>
16.00	Wolfgang Schöllhorn – <i>"Managing instability: A quantitative framework for individualized motor learning"</i>
16.30 – 17.00	Coffee break (3rd floor)
17.00 – 18.30	3rd Session – Auditorium I (A. Fernate, K. Ciekurs)
17.00	<i>"Rate of torque development as an indicators of neuromuscular coordination in the glenohumeral joint of young female tennis players"</i> – Waldziński T., Durzyńska A., Niespodziński B., Mieszkowski J., Kochanowicz A.

17.10	<i>"Growth status of female field hockey players relative to population references"</i> – Bartkowiak S., Konarski J.M., Coelho-e-Silva M.J., Koziel S.M., Malina R.M.
17.20	<i>"Practical utility of split-time analysis for age-category sprint profiling in male youth football"</i> – Chmura P., Grycmann P.
17.30	<i>"Effect of local vibration on cyclists"</i> – Ciekurs K., Brēmanis A., Grants J., Litwiniuk A.
17.40	<i>"The effects of different playing intervals of 3x3 and 5x5 basketball on the physical and physiological demands of elite male basketball players"</i> – Kamarauskas P., Paulauskas R.
17.50	<i>"Critical thinking as a prerequisite for artificial intelligence integration in sports education: A conceptual review"</i> – Čeplikė V.
18.00	<i>"Smart municipalities for physical activity: Developing a digital HEPA-based monitoring system in Latvia"</i> – Fernate A., Zidens J., Luika S., Kamenecka-Usova M., Jakovleva M., Līcis R., Mikelsons M.
18.10	<i>"From sustainable to regenerative tourism: Conceptual transformation and practical assessment toolkit"</i> – Jasinskas E., Simanavičius A., Fominienė V.B., Ūsas A.
18.20	<i>"Coordination training enhances kicking accuracy and neuromuscular control in novices: a comparative study with strength training"</i> – Zhang L., Zhang. M., Liu H.
17.00 – 18.30	3rd Session – Auditorium II (A. Koka, J. Konarski)
17.00	<i>"Variability within bio-banding groups as an important context for improving the effectiveness and safety of youth training"</i> – Konarski J.M., Bartkowiak S., Maly T., Coelho-e-Silva M.J., Koziel S.M., Malina R.M.
17.10	<i>"Mixed reality training to enhance stress-resilient selective and sustained attention in adolescent basketball players"</i> – Liepa A., Dūte A., Peleckis G., Semjonova G., Tang J., Šuriņa S., Pleinica S.
17.20	<i>"Changes in submaximal and maximal performance after a 45-minute cycling session and their association with perceived exertion"</i> – Alt M., Mäestu J., Lepasalu L., Kuusemets R.
17.30	<i>"The impact of differential and repetitive training methods on shooting performance, perceived exertion, and enjoyment in basketball"</i> – Burkaitė G., Paulauskas R.
17.40	<i>"Comparative analysis of methods for determining training zones based on heart rate and lactate levels and their effectiveness in improving physical performance among young amateur men and women aged 18–40 years"</i> – Gajevskis A.

17.50	<i>“Changes in basketball training load over a 8-week training period” – Kuusemets R., Leetma H.E., Mäestu J.</i>
18.00	<i>“The role of emotional support in facilitating cooperation in youth hockey” – Lavins R., Volgemute K., Fernate A.</i>
18.10	<i>“Cognitive-motor dual-task training in open-skill sports: current evidence, methodological considerations, and future research directions” – Talents D., Veliks V., Fernāte A.</i>
19.30 – 24.00	Gala Dinner

Friday 11th September

9.00 – 10.30	4th Plenary session – Auditorium I (A. Lisinskiene, E. Jasinskas)
9.00	Jared M. Porter – <i>“The virtues of virtual reality”</i>
9.30	Agris Liepa – <i>“Mixed-reality breathing biofeedback versus cognitive eye-tracking tasks in adolescent basketball players: A feasibility randomized controlled trial and pilot studies”</i>
10.00	Rutenis Paulauskas – <i>“Advancing sport science through applied tracking technologies”</i>
10.30 – 12.00	Poster Session (M. Starzak, M. Nogal, M. Biegajło)
12.00 – 12.30	Coffee break (3rd floor)
12.30 – 14.00	4th Session – Auditorium I (J. Zidens, A. Litwiniuk)
12.30	<i>“Teaching, coaching, thriving: work-related stress and quality of life among sport educators” – Fernate A., Antapsone E., Volgemute K., Veliks V., Grants J., Vazne Ž., Šteinmane V., Talents D.</i>
12.40	<i>“Controlling physical education teaching, need frustration, and bullying across offline and online contexts” – Koka, A., Kabanen S., Tilga H.</i>
12.50	<i>“Longitudinal changes in coach–athlete–parent relationships and psychological outcomes in youth basketball” – Lisinskiene A., Lochbaum M.</i>
13.00	<i>“Psychological indicators of mental health in boxing athletes according to gender” – Litwiniuk A., Obminski Z., Grants J., Boobani B., Blach W., Romero-Ramos O., Niepogoda D.</i>
13.10	<i>“Athletes’ experiences of interpersonal relationships with coaches in Lithuanian climbing sport” – Balkaitytė A., Lisinskienė A.</i>
13.20	<i>“Exploring the stress and mental strength in tennis players’ burnout” – Radzevičiūtė L., Šukys S.</i>

13.30	<i>“Changes in physical fitness and physical activity among children and adolescents aged 6–16 in the city and county of Tartu: A four-stage longitudinal study” – Lilles I., Järvamägi M., Riso E.M.</i>
13.40	<i>“Motivational regulations in training and competition contexts predicting sport performance in female volleyball players and aesthetic group gymnasts” – Tilga H., Tamme A., Keerutaja-Must M., Koka A.</i>
14.00 – 14.15	Closing ceremony – Auditorium I
14.15 – 15.15	Lunchtime (3rd floor)

Poster Session

“Changes in physical development and motor skills of academic youth in Zielona Góra in the years 1990-2025” – Asienkiewicz R.

“Acute cardiovascular and muscle oxygenation responses to a single multimodal training session in physically inactive young men” – Brazdionyte R., Trinkunas E.

“Dance and movement therapy as a complementary approach to promoting physical activity among sedentary workers” – Bula-Bitenice I., Vende K., Pavlova V.

“International and transdisciplinary challenge-based learning: Evaluating students' perceived confidence and NPS outcomes” – Bustamante-Sánchez Á., Leite N., Lukonaitienė I.

“Physical activity of nursing staff aged over 40 working in hospital wards and outpatient clinics” – Bylina D., Dmitruk A.

“The mediating role of athlete–coach relationship in the association between athlete resilience and psychological well-being” – Česnavičienė J., Kemerytė-Ivanauskienė E.

“Baseline performance and the acquisition and retention of a korfbal shooting skill” – Chaliburda A., Cieśliński I., Sadowski J.

“The effect of 48-hour fasting on the acquisition, retention, and transfer of a constant fast-precise motor skill to the non-dominant hand” – Daugė G., Šatas A., Mickevičienė D., Solianik R., Brazaitis M.

“Affective response, enjoyment, perceived exertion and submaximal performance in indoor and outdoor continuous running among university students” – González-Prieto N., Romero-Ramos O.

“Changes in physical fitness of young female volleyball players during an annual training cycle” – Filipavičius K., Zuoza A.K.

“The impact of different music rhythms on the development of coordination skills in third-grade physical education” – Gailītis D.D., Bula-Bitenieca I.

“Dietary behaviours and physical activity among children and adolescents with type 1 diabetes” – Galczak-Kondraciuk A., Rychlik K., Szewczyk A., Wysocka-Mincewicz M.

“Injury rates among elite Greco-Roman and Freestyle wrestlers during competition” – Gierczuk D., Bujak Z., Czubak D.

"Genome-wide and candidate gene associations with anaerobic traits in elite Lithuanian athletes" – **Ginevičienė V., Anikevičiūtė G.**

"The effectiveness of aquatic therapy using the Halliwick method in children with autism" – **Gromisz W.**

"The effect of mobility and stabilization physiotherapy programs on functional status and pain intensity in individuals experiencing chronic non-specific lower back pain" – **Jakelaitytė R., Daugė G., Mickevičienė D.**

"Assessment of variation in the morphological component of H-RF among students according to declared physical activity" – **Jaworski J., Żak M., Kołodziej E.**

"The effects of ashwagandha supplementation on biochemical markers of post-exercise recovery in highly trained wrestlers" – **Jówko E., Gierczuk D., Długotłęcka B., Charmas M., Cieśliński I., Sadowski J.**

"Professional competencies of physiotherapists students" – **Juśkiewicz K., Piech K., Korpak F., Litwiniuk A., Romero-Ramos O., Niepogoda D.**

"A model of the relationship between the structure of physical fitness and the effectiveness of youth competition – a theoretical and empirical approach" – **Karpowicz K., Strzelczyk R., Gozdecki R.**

"Comparison of muscle oxygenation-derived threshold with lactate-based exercise thresholds in elite speed skaters" – **Klusiewicz A., Rębiś K., Kowalski T., Malczewska-Lenczowska J., Długotłęcka B., Czaplicki A.**

"The role of parents in facilitating the transition from elite youth football to elite adult football: Coaches' perspectives" – **Kovalovs A., Fernate A.**

"Assessment of fundamental movement patterns in preschool children" – **Labecka M.K., Plandowska M., Wawryszczuk P., Kaczmarek P., Wódka K., Jankowicz-Szymańska A.**

"Active breaks and classroom behavior: key aspects based on scientific evidence" – **Losada-Berlanga M.C., Romero-Ramos O., Mayorga-Vega D., Fernandez-Rodriguez E.F., Litwiniuk A.**

"Components of the FGF21 signaling axis as candidate molecular markers of training status in young men" – **Małkowska P., Tomasiak P., Tkacz M., Zgutka K., Tarnowski M., Maciejewska-Skrendo A., Buryta R., Rosiński Ł., Sawczuk M.**

"Relationship between lower-limb muscle mechanical properties and postural control strategy in older adults" – **Mickevičienė L., Česnaitienė V., Kielė D., Kairiūkštytė A., Masiulis N., Levin O.**

"Differences in psychomotor performance among handball referees based on competition level" – **Pelc S., Śliż M., Przednowek K.**

"Surface EMG in assessment of lumbar muscle activation in non-specific low back pain" – **Poderienė K., Kairiūkštienė Z., Poderys J.**

"Barriers to physical activity and healthy eating among university students" – **Sehtman Tiomno K., Romero-Ramos O., González Suárez A.**

“Nordic walking impact on functionality of the cervical spine and non-specific cervical spine pain in office workers” – Smila B., Henilāne I.

“Associations between positive youth outcomes and coach–athlete relationships in youth football” – Stankevičius E., Stankevičienė G.

“Could winter swimming become an event in the Winter Olympics?” – Statkeviciene B., Ryzenweber M.

“Developing universal and specific adaptations of Eurofit tests for students with intellectual disabilities” – Strazdina N., Klavina A.

“Effects of acute cold exposure on adipose tissue gene expression in overweight adults in relation to sex and ACTN3 genotype” – Subocius A., Chaillou T., Lair B., Maslo C., Moro C., Cesanelli L., Putriute V., Mickeviciene D., Kamandulis S., Vencckunas T.

“Nationalism and patriotism, and attitudes towards the Olympic Games and Olympic values among coaches” – Šukys S., Grumbinė I.

“Application of velocity-based training in elite female athletes preparing for international championships” – Szyszka P.

“Body posture in young female volleyball players with varying training experience” – Śliwa M., Górniak K., Lichota M.

“Prevalence of bullying among adolescents participating in gymnastics sports” – Treigienė M., Fominienė V.B.

“Physical activity in individuals with Autism Spectrum Disorder (ASD) in the light of contemporary research” – Tyszkiewicz-Gromisz B., Martyniuk A., Pietruczuk P.

“Association between body mass index and performance in selected motor tests: Evidence from two European countries” – Wasiluk A., Kyrychenko V., Deak G.F., Saczuk J., Wilczewski R.

“Chronic disease alters the relationships between physical literacy, physical activity, and body composition in older women” – Zenic N., Gilic Skugor B., Muzinic K.

“Barbell velocity in strength training: Current evidence and practical applications” – Zielinska W.

“Comparative effects of swimming instruction and physical education on children’s psycho-emotional health: A quasi-experimental study” – Zuoziene I.J., Ladygiene I.

“Physical literacy in Lithuania: First findings from a national study of primary school children” – Vizbariene A., Emeljanovas A., Mieziene B.

“Preliminary comparison of anaerobic performance assessed by upper- and lower-limb Wingate tests in young soccer players and swimmers” – Mikita A.

Additional Information

Poster Submission: Participants presenting posters are kindly requested to submit their posters at the Reception Desk during conference registration.

Gala Dinner Transportation: Transportation to the Gala Dinner will be provided from **7:00 PM**, departing from the parking area in front of the **University Main Building**. Return transportation will also be provided, with the **last departure from the Gala Dinner venue at 11:30 PM**.

Should you have any questions or require further information, please feel free to contact the Conference Secretary by e-mail at robert.wilczewski@awf.edu.pl or by phone at **+48 536 335 446**.