



The 17th Conference of Baltic Society of Sport Sciences

April 24 - 26, 2024

Tartu, Estonia



The 17th Conference of Baltic Society of Sport
Science

PROGRAMME

April 24–26, 2024
Tartu, Estonia

Scientific Committee

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Prof. Mati Pääsuke	University of Tartu
Prof. Priit Kaasik	University of Tartu
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CONFERENCE PROGRAMME

April 24, 2024
Wednesday

Institute of Sport Science and Physiotherapy (Ujula 4)

18:30 – 19:00 Arrival and registration
19:00 – 21:00 Welcome cocktail

April 25, 2024
Thursday

Institute of Sport Science and Physiotherapy (Ujula 4)

8:45 – 9:20 Registration
9:20 – 9:40 Opening of the conference
9:45 – 11:30 Plenary session I (Keynote speakers)
11:30 – 12:00 Coffee break
12:00 – 13:30 Scientific session I: Oral presentations
Session 1: Sports Physiology and Coaching I
Session 2: Pedagogy, Social Aspects and Management in Sport I
Session 3: Physiotherapy and Health I
Session 4: Physical Activity and Fitness I
13:30 – 14:15 Lunch
14:15 – 15:00 Poster presentations
15:00 – 16:30 Scientific session II: Oral presentations
Session 1: Sports Physiology and Coaching II
Session 2: Pedagogy, Social Aspects and Management in Sport II
Session 3: Sports Physiology and Coaching III
Session 4: Physical Activity and Fitness II
16:30 – 17:15 Baltic Society of Sport Sciences board meeting
19:00 – 23:00 Conference Dinner (White Hall of the University of Tartu, Lossi 25, University of Tartu Museum)

April 26, 2024
Friday

Institute of Sport Science and Physiotherapy (Ujula 4)

9:00 – 11:15 Plenary session II (Keynote speakers)
11:15 – 11:45 Coffee break
11:45 – 13:00 Scientific session III: Oral presentations

Session 1: Sports Physiology and Coaching IV

Session 2: Pedagogy, Social Aspects and Management in Sport III

Session 3: Physiotherapy and Health II

13:00 – 13:30

Closing Ceremony

13:30 – 14:30

Lunch and departure

Duration of the presentations:

International keynote speakers 40 minutes + 5 min for questions

Baltic keynote speakers 25 minutes + 5 min for questions

Oral presentation 10 min + 5 min for questions

Poster presentation 2 min

Conference language

The official language of the conference is English.

PLENARY SESSION I

April 25, 2024

Room: A.M. Viru auditorium

9:20–9:40 **Opening of the Conference**

KEYNOTE SPEAKERS

Chair: Prof. Jarek Mäestu (Estonia)

9:45–10:30 **Prof. Peter Hoffman (Austria)**
Exercise intensity and duration relationship - impact on strain, fatigue, and adaptation.

10:30–11:00 **Prof. Arunas Emeljanovas (Lithuania)**
What makes fit and what makes fat: portrait of Lithuanian schoolchild and its changes through decades.

11:00–11:30 **Prof. Aistė Barbora Ušpurienė (Lithuania)**
Motor creativity promotion: teaching strategies and evaluation.

11:30–12:00 **Coffee break**

SCIENTIFIC SESSION I

Session 1: Sports Physiology and Coaching I

April 25, 2024

Room: A.M. Viru auditorium

Chair: Prof. Priit Kaasik (Estonia)

- 12:00–12:15 **Pääsuke M**, Purge P, Rimmel L, Erelne J, Kums T, Jürimäe J. (Estonia)
Adaptive changes after 3-week cycling sprint interval training in young and older adults.
- 12:15–12:30 **Kamarauskas P**, Paulauskas R. (Lithuania)
Physical and physiological response to different modes of repeated sprint exercises in basketball players.
- 12:30–12:45 **Paulauskas R.** (Lithuania)
Muscle oxygenation in different types of intermittent training protocols.
- 12:45–13:00 **Ciekurs K**, Brēmanis, Ciekure M, Brēmane M. (Latvia)
Local vibration influence on cyclists' anaerobic power and anaerobic power capacity.
- 13:00–13:15 **Brazaitis M**, Dauksaite G, Solianik R, Eimantas N. (Lithuania)
Is 70 min of heat exposure through two weeks enough to induce heat acclimation?
- 13:15–13:30 **Mäestu J**, Kuusemets R, Purge P, Rääpo H. (Estonia)
The effect of exercise duration on RPE during low-intensity cycling exercise in highly trained endurance athletes.
- 13:30–14:15 **Lunch**

Session 2: Pedagogy, Social Aspects and Management in Sport I

April 25, 2024

Room: F. Kudu auditorium

Chair: Assoc. Prof Andre Koka (Estonia)

- 12:00–12:15 **Paap H***, Koka A, Meerits P-R, Tilga H. (Estonia)
Examining the efficacy of a web-based need-supportive intervention program for physical education teachers: the changes in cognitive and behavioral outcomes among students in relation to physical activity.

- 12:15–12:30 **Martinsone S***. (Latvia)
Mentoring in dual career sports: a systematic review.
- 12:30–12:45 **Iljins A***. (Latvia)
Sports brand management based on costumers wishes, Latvian Football League.
- 12:45–13:00 **Burkaitė G***. (Lithuania)
A constraint-based approach to skills training in game sports.
- 13:00–13:15 **Kovalovs A***, Fernāte A. (Latvia)
Athletic career development and its stages transition strategies.
- 13:15–13:30 **Pihu M**, Salme K. (Estonia)
Supporting the development of socio-emotional skills in physical education by the Estonian physical education teachers.
- 13:30–14:15 **Lunch**

Session 3: Physiotherapy and Health I

April 25, 2024

Room: Seminar room 3014

Chair: Dr. Kadri Medijainen (Estonia)

- 12:00–12:15 **Mickevičienė L***, Drozdova-Statkevičienė M, Masiulis N, Kušleikienė S, Levin O, Česnaitienė VJ. (Lithuania)
Effects of resistance exercise on postural balance in older adults at low and high risk of mild cognitive impairment.
- 12:15–12:30 **Klavina A**, Ceseiko R, Campa M, Jermolenko GF, Llorente A. (Latvia)
The effect of high intensity interval training program, quality of life and severity of chemotherapy side effects in women with breast cancer (Cancerbeat project, Nr. EEZ/BPP/VIAA/2021/2).
- 12:30–12:45 **Solianik R**, Daukšaitė G, Jarutienė L, Brazaitis M. (Lithuania)
The effect of repeated short-duration hot water immersion on glucose tolerance and insulin response.
- 12:45–13:00 **Feofilova A**, Kurmeļeva A, Dubiņina E. (Latvia)
Correlation of quality-of-life scores with kinesiphobia and physical activity level in people with the hypermobility spectrum.
- 13:00–13:15 **Daukšaitė G***, Eimantas N, Brazaitis M. (Lithuania)
Effects of head-neck cooling on central and peripheral fatigue and blood markers of stress in multiple sclerosis (MS) and healthy men.

13:15–13:30 **Grigaitė V***, Čekanauskaitė A, Šatas A, Mažuolytė-Binderienė A, Brazaitis M. (Lithuania)
Psychoemotional state during 8-hour work-day: glucose and ketone levels in healthy women, fed vs. fasted - pilot study.

13:30–14:15 **Lunch**

Session 4: Physical Activity and Fitness I

April 25, 2024

Room: Seminar room 3015

Chair: Prof. Arunas Emeljanovas (Lithuania)

12:00–12:15 **Piech K.** (Poland)

Physical activity of grandchildren in the opinion of grandparents.

12:15–12:30 **Lemberg GM***, Riso E-M, Kull M, Mäestu J, Mäestu E. (Estonia)

Outdoor recess already on some days of the school week is associated with higher physical activity levels and lower sedentary time of students.

12:30–12:45 **Steinmane V***, Fernate A. (Latvia)

The effect of breathing exercises on adults' sleep quality: an intervention that works.

12:45–13:00 **Järvamägi M***, Reisberg K, Riso E-M, Jürimäe J. (Estonia)

Academic achievements and physical fitness of 5th grade students according to sports club attendance in Tartu and Tartu County.

13:00–13:15 **Meerits P-R***, Tilga H, Koka A. (Estonia)

Web-based need-supportive interventions for physical education teachers and parents to support children's physical activity related cognitive outcomes.

13:15–13:30 **Keizane A, Cupriks L.** (Latvia)

Well-being and work specifics for fitness trainers in Latvia.

13:30–14:15 **Lunch**

POSTER PRESENTATIONS

April 25, 2024

14:15–15:00

Session 1: Sports Physiology and Coaching

Chair: Dr. Artur Litwiniuk (Poland)

1. **Gulbe A**, Aldina M. (Latvia)
Development of dynamic balance of kayakers on sup board during competition period (10-14 years).
2. **Tomašs A.** (Latvia)
Accuracy of free throw shots in basketball and its dependence on the intensity of physical load in basketball games and trainings.
3. **Rommel L**, Jürimäe J, Tamm A-L, Purge P, Tillmann V. (Estonia)
Resistin is associated with body image perception in adolescent rhythmic gymnasts.
4. **Politis G**, Milavic B. (Lithuania)
Relations of perceived parental support with youth basketball performance.
5. **Ylaite B**, Eimantas N, Solianik R, Brazaitis M. (Lithuania)
Impact of 48-hour fasting on exercise metabolism: contrasting responses in endurance vs. High-intensity athletes to maintain similar exercise tolerance.
6. **Liepina I**, Portnova I. (Latvia)
Climbing sports for the visually impaired people.
7. **Waldzinski T**, Waldzinska E, Durzynska A, Litwiniuk A, Ozdoba M. (Poland).
Selected indicators of sports success of young tennis players.
8. **Kängsepp A**, Purge P, Rommel L, Jääger L, Tillmann V, Jürimäe J. (Estonia)
Energy balance, body composition and performance in adolescent cyclists and paddlers.

Session 2: Pedagogy, Social Aspects and Management in Sport

Chair: Assoc. Prof. Signe Luika (Latvia)

1. **Tilga H**, Aljasmäe L-M, Paap H, Meerits P-R, Koka A. (Estonia)
The effectiveness of a web-based intervention program in enhancing physical education teachers' need-supportive behaviors: a study of teachers' experiences.
2. **Dravniece I, Bula-Biteniece I**, Linde A. (Latvia)
Movement games to promote thinking skills of 5-6-year-old children.
3. **Hoppen B**, Sukys S. (Lithuania)
Unveiling the shadows of cheating: a qualitative investigation of athletes' views on cheating in sports.

4. **Malahova L, Boge I.** (Latvia)
The peculiarities of teaching professional terminology in English, German, Russian and Latvian to sport science students in virtual and in-person environments.
5. **Rudzinska I, Jakovļeva M.** (Latvia)
Foreign language learning strategy peculiarities in Latvian sport science and health care students.
6. **Sproge E, Abele A.** (Latvian)
Evaluation parameters of communication skills in volleyball.
7. **Jasinskas E, Simanavičius A, Ūsas A.** (Lithuania)
Application ways of artificial intelligence in the sports industry: The systematic literature review.
8. **Stanionis D, Požeriene J.** (Lithuania)
Development of social skills by children with behavioral difficulties through physical activities.
9. **Majauskiene D, Valanciene D, Skurvydas A.** (Lithuania)
Ethical issues in sports.

Session 3: Physiotherapy and Health

Chair: Prof. Vahur Ööpik (Estonia)

1. **Spundiņa L, Ābele A, Veseta U.** (Latvia)
Health behaviour influencing factors in physiotherapy students: descriptive study.
2. **Mets M, Amjaga A, Puks K.** (Estonia)
Effect of a 3-month home exercise program on 6-minute walk test and handgrip strength in children with cystic fibrosis.
3. **Anikevičiute G, Žažekyte G, Ginevičiene V.** (Lithuania)
Interleukin 6 coding gene variant in Lithuanian professional team sports.
4. **Ozols E, Galeja Z.** (Latvian)
Impact of muscle-strengthening workouts on human kinetic chains based on a literature review.
5. **Ciekure M, Ciekurs K.** (Latvia)
Basic principles of rehabilitation of oncological patients.
6. **Jociene E, Pozeriene J.** (Lithuania)
The effectiveness of adapted physical activity on the physical and emotional state of people with Alzheimer's disease.
7. **Galeja Z, Ozols E.** (Latvia)
FMS (Functional Movement Screen) evaluation after correction of diastasis of *m. Rectus abdominis* in women 1-3 years after childbirth.

Session 4: Physical Activity and Fitness

Chair: Dr. Eva-Maria Riso (Estonia)

1. **Vieversyte-Dvyliene M**, Streckis M, Brazauskas L, Streckis V (Lithuania)
Acute intraocular changes during isometric exercise and recovery: the influence of participant's sex and breathing type.
2. **Katine A**, Šermukšnis M, Gray SR, Ratkevičius A. (Lithuania)
Effects of two-week reduction in physical activity on skeletal muscle strength and endurance of young men and women.
3. **Vaher K**, Pihu M, Mäestu E. (Estonia)
Estonian 10th graders' physical fitness levels compared to FitBack health-related norms.
4. **Pehme A**, Puhke R, Alev K. (Estonia)
Age-related changes in the Tartu marathon and half-marathon performance.
5. **Nurulfa R**, Klavina A. (Latvia)
Research protocols: the effect of participation in sports on problematic internet use and physical and cognitive health in adolescents.
6. **Jalakas E**. (Estonia)
Physical activity and fitness of applicants of the Estonian Academy of Security Sciences.

SCIENTIFIC SESSION II

Session 1: Sports Physiology and Coaching II

April 25, 2024

Room: A.M. Viru auditorium

Chair: Prof. Arvydas Stasiulis (Lithuania)

- 15:00–15:15 **Maconytė V***, Stasiulė L, Juodsnukis A, Zuoziene IJ, Stasiulis A. (Lithuania)
Aerobic capacity under specific and non-specific testing conditions in swimmers aged 11-13 years.
- 15:15–15:30 **Kuusemets R***, Purge P, Vahtra E, Mäestu J. (Estonia)
Associations between internal load and changes in performance in youth basketball players.
- 15:30–15:45 **Kalmus O-E***, Mäestu J, Kaart T, Alvar B, Naclerio F. (Estonia)
Influence of high training loads and neuromuscular fatigue on performance change in high-level basketball players during a preparatory period.
- 15:45–16:00 **Coletta F***, Freidgeimas G, Pernigoni M, Kamandulis S. (Lithuania)
Concurrent validity and reliability of laboratory and portable vertical jump assessment technologies.
- 16:00–16:15 **Vitoliņš K***, Fernate A. (Latvia)
Coaching and sports training quality monitoring.
- 16:15–16:30 **Zusa A**, Zidens J, Jakubovskis G, Laksbergs M. (Latvia)
Knee muscle strength and hamstrings to quadriceps ratio in young and adult football players.
- 16:30–16:45 **Rannama I**, Reinpõld K. (Estonia)
Agreement between Ventilatory Thresholds and muscle oxygen saturation breakpoints of *Vastus Lateralis* and *Erector Spinae* muscles of young trained road cyclists.

Session 2: Pedagogy, Social Aspects and Management in Sport II

April 25, 2024

Room: F. Kudu auditorium

Chair: Dr. Henri Tilga (Estonia)

- 15:00–15:15 **Noormets J**, Kuu S. (Estonia)
Relationships of Estonian adolescents' participation in sport with values and attitudes towards moral decisions.

- 15:15–15:30 **Antapsone E.** (Latvia)
Outdoor activities interventions evaluation on students' self-regulation skills.
- 15:30–15:45 **Gražulis D,** Sabaliauskas S, Žilinskienė N, Kaukėnas T. (Lithuania)
How young athletes in Lithuania assess their self-regulated learning skills.
- 15:45–16:00 **Koka A,** Rutkauskaitė R, Fernāte A, Roosivāli I, Grudzinskaitė G, Vazne Ž, Gruodytė-Račienė R, Visagurskienė K, Tilga H. (Estonia)
Predicting adolescents' physical activity during school recess in a schoolyard: testing a model based on self-determination theory and theory of planned behaviour in Estonian, Latvian, and Lithuanian samples.
- 16:00–16:15 **Ng K,** Venckuniene K, Klavina A, Labecka M, Ostaseviciene V, Pozeriene J, Koistinen R, Puromies M, Reklaitiene D, Morgulec-Adamowicz N. (Lithuania)
Inclusive physical education Technological Pedagogical and Content Knowledge (TPACK) among primary school teachers.
- 16:15–16:30 **Luika S,** Fernāte A, Žīdens J, Birzina I, Kameņeckā-Usova M, Kudinska M, Solovjova I, Mikelsons M, Grikis R. (Latvia)
Sports industry sustainable development dimensions and criteria (indicators).

Session 3: Sports Physiology and Coaching III

April 25, 2024

Room: Seminar room 3014

Chair: Prof. Marius Brazaitis (Lithuania)

- 15:00–15:15 **Sinuligga AR***, Pontaga I, Slaidins K. (Latvia)
Impact of resistance training on anaerobic performance and dynamic balance in young football players.
- 15:15–15:30 **Cesanelli L***, Conte D, Satkunskiene D. (Lithuania)
Respiratory and lower limb musculotendinous structures follow similar adaptive paths in response to different chronic exercise training.
- 15:30–15:45 **Bleidelis I***. (Latvia)
Comparison of variability of passes, their effectiveness, and their usage in football matches of the Latvian youth championship for age groups U13 and U14.
- 15:45–16:00 **Teteris LE***, Saulite S, Licis R. (Latvia).
Reaction speed training in fencing: literature review and future agenda.
- 16:00–16:15 **Pontaga I,** Sinulingga AR, Slaidins K. (Latvia)
Comparison of static and dynamic balance at the beginning and end of the competition season in adolescent male football players.
- 16:15–16:30 **Solovjova J,** Boobani B, Jakubovskis G, Glaskova-Kuzmina T. (Latvia)
Swimmers' shoulders injury prevention by testing at a young age.

Session 4: Physical Activity and Fitness II

April 25, 2024

Room: Seminar room 3015

Chair: Assoc. Prof. Ausra Lisinskiene (Lithuania)

- 15:00–15:15 **Fernate A**, Vazne Z. (Latvia)
Psychometric properties of a Physical Activity Scale (PAS).
- 15:15–15:30 **Kairiukštienė Ž**, Poderiene K, Velička D, Poderys J. (Lithuania)
The effect of short-term high-intensity interval training on the CVS in individuals exercising for health enhancement.
- 15:30–15:45 **Satas A**, Grigaitė V, Mažuolyte-Binderiene A, Cekauskaite A, Brazaitis M. (Lithuania)
Investigating strategies to alleviate mental fatigue during prolonged cognitive work: insights from EEG data.
- 15:45–16:00 **Kernagyte Ž**, Mickevičiene L, Klimavičiute E. (Lithuania)
Effects of high-intensity and low-intensity resistance training with blood flow restriction on physical capacity in elderly male.
- 16:00–16:15 **Boobani B**, Grants J, Litwiniuk A. (Latvia)
The recovery-stress questionnaire to measure stress-recovery of martial arts athletes.
- 16:15–16:30 **Čekauskaitė A**, Šatas A, Grigaitė V, Mažuolyte-Binderiene A, Brazaitis M. (Lithuania)
Investigating the impact of a combined work model strategy on cognitive efficiency and mental fatigue resistance: preliminary findings.
- 16:30–16:45 **Mažuolyte-Binderiene A**, Čekauskaite A, Šatas A, Grigaitė V, Brazaitis M. (Lithuania)
Impact of physical activity on cognitive efficiency and mental fatigue resistance during simulated working day.

****Indicates a young scientist's presentation***

PLENARY SESSION II

April 26, 2024

Room: A.M. Viru auditorium

Chair: Prof. Mati Pääsuke (Estonia)

KEYNOTE SPEAKERS

- 9:00–9:45 **Prof. Alon Eliakim (Israel)**
Genetic basis of athletic performance
- 9:45–10:15 **Dr. Kadri Arumäe (Estonia)**
Personality traits' associations with body composition and physical activity
- 10:15–10:45 **Assoc. Prof. Merike Kull (Estonia)**
Physical Activity in children and youth – challenges and opportunities
- 10:45–11:15 **Assoc. Prof. Katrina Volgemute (Latvia)**
Exploring cyclist behavior, habits, and safety outcomes in Latvia
- 11:15–11:45 **Coffee break**

SCIENTIFIC SESSION III

Session 1: Sports Physiology and Coaching IV

April 26, 2024

Room: A.M. Viru auditorium

Chair: Prof. Jaak Jürimäe (Estonia)

- 11:45–12:00 **Litwiniuk A**, Blach W, Grants J, Boobani B. (Poland)
Selected factors determining success in combat sports.
- 12:00–12:15 **Biegajlo M**, Nogal M, Niznikowski T. (Poland)
The benefits of providing verbal feedback on the key elements of sports technique for motor tasks with a complex movement structure.
- 12:15–12:30 **Pimenovs E**, Saulite S. (Latvia)
Arsenal of technique, resultativity and effectiveness of judokas at European Championships cadets - Odivelas 2023 (weight categories -66 and -73kg).
- 12:30–12:45 **Purge P**, Kängsepp A, Remmel L, Kivil A, Jürimäe J. (Estonia)
Differences of physical capabilities, anthropometric parameters and training loads of 15-19 years old athletes practicing different sports.
- 12:45–13:00 **Vaher I**, Timpmann S, Medijainen L, Ööpik V. (Estonia)
The effects of acute sodium citrate supplementation on metabolism and 5000m running performance in trained young men.

Session 2: Pedagogy, Social Aspects and Management in Sport III

April 26, 2024

Room: F. Kudu auditorium

Chair: Prof. Andra Fernate (Latvia)

- 11:45–12:00 **Lisinskiene A**, Lochbaum M. (Lithuania)
A new measure: Coach-Athlete-Parent (C-A-P) relationship in youth sport: the positive and negative processes in the C-A-P questionnaire (PNPCAP).
- 12:00–12:15 **Chaliburda A**, Wołosz P, Sadowski J. (Poland)
The motor learning effects of combining an external attentional focus and task-relevant autonomy.
- 12:15–12:30 **Park M**, Uibu M, Mägi K, Kull M. (Estonia)
Physical activity in the classroom: schoolchildren's perceptions of existing practices and new opportunities.

12:30–12:45 **Gailitis DD**, Bula-Biteniece I. (Latvia)
The influence of music in volleyball training for the development of motor coordination for seven-year-olds.

Session 3: Physiotherapy and Health II

April 26, 2024

Room: Seminar room 3014

Chair: Dr. Doris Vahtrik (Estonia)

- 11:45–12:00 **Medijainen K.** (Estonia)
Access to evidence-based physiotherapy in Estonia - preliminary results of an on-going study.
- 12:00–12:15 **Pruunsild G.** (Estonia)
Access to rehabilitation following total hip arthroplasty.
- 12:15–12:30 **Kalajas-Tilga H.** (Estonia)
Access to physiotherapy: a private practice perspective/ the future of physiotherapy accessibility in Estonia: upcoming changes and the possibilities of a private physiotherapy practice.
- 12:30–12:45 **Leppik K.** (Estonia)
Primary elective total knee arthroplasty rehabilitation during 2010-2021 in Estonia
- 12:45–13:00 Discussion

CLOSING CEREMONY

April 26, 2024

Room: Viru Auditorium

13:00–13:30 General conclusions
Young Scientist's Award
Presentation of the next BSSS Conference

13:30–14:30 Lunch and departure

