



22nd annual Congress of the

EUROPEAN COLLEGE OF SPORT SCIENCE SPORT SCIENCE IN A METROPOLITAN AREA

5th - 8th July 2017, Essen - Germany



Ruhr University Bochum, Technical University of Dortmund and University of Duisburg-Essen

ECSS MetropolisRuhr 2017



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Welcome

Welcome to the 22nd Annual Congress of the ECSS

On behalf of the three hosting institutions of the University Alliance Ruhr (UARuhr), namely the Faculty of Sport Science (Ruhr-Universität Bochum), the Institute of Sport and Sport Science (TU Dortmund University) and the Institute of Sport and Movement Science (University Duisburg-Essen), it is our greatest pleasure to invite you to attend the 22nd Annual Congress of the European College of Sport Science in MetropolisRuhr. The congress will be held between 5th and 8th July, 2017, at the Congress Centre Essen (CCE) which is easily accessible by train from Düsseldorf International Airport and well connected by local transportation services.

"Sport Science in a Metropolitan Area", as a superior conference topic, faces the tremendous challenges in a large and multicultural population centre, including the broad range from **Inactivity** to high intensive physical stress, the distinct trend of achieving more **Individuality** in lifestyle and physical activity, as well as the **Inclusion** of minorities. Historically, some high-performance sports, such as professional football, have been an important key to strengthen the people's **Identification** with our region. These specific challenges will run as a red thread through the congress and will be taken up by the plenary talks, oral and poster presentations and symposia.

Our mission as experts in Sport Science, working within MetropolisRuhr, is to explore scientifically some of these challenges and issues. We approach them from an interdisciplinary perspective, including humanities, natural sciences and medicine, and we teach them with a very practical orientation. Research-based learning is a guiding principle in all Bachelor and Master programs. By that, we ensure the best transfer of knowledge for our students, who will soon be responsible for our future society.

As young investigators are the future key-players in Sport Science research, the ECSS MetropolisRuhr 2017 will specifically attract and very warmly welcome highly motivated early stage researchers from all over the world, provide instructional workshops and satellites and bring them together with top experts in all different fields of Sport Science. We also aim at offering researchers a platform for presenting and discussing their very recent findings with their colleagues, in order to create or stabilize networks, and - overall - to ensure that relevant findings will be beneficial for our society.

A congress is not only a place for transfer of knowledge but also for learning about the host country and its people. In the area of MetropolisRuhr, there has been a huge transformation from an area of coal mining and steel production to a modern metropolis of the 21st century. Our region is famous for its social diversity, a fusion of industrial history and trendy culture and numerous recreational and high-performance sporting activities. In direct neighbourhood to CCE, one can find the famous "Grugapark" offering a botanical garden with rare and beautiful plants, an attractive animal park, a health facility and spa, and a gastronomic place that invites you to get together in several stylish restaurants. The illuminated main path is perfect for doing your own recreational activities, like running or walking, and in a just five minutes' walk you can reach the popular dining and nightlife area "Rüttenscheider Straße", where local pubs invite you to linger after a long and busy congress day. If you like to learn more about Germany, we will recommend you to visit the city of Cologne and other spots in the region of North-Rhine Westphalia, as well as some of the most famous touristic places somewhere else in Germany, like the Alps in the south, the Wadden Sea in the north, or the manifold attractions of our pulsatile capital Berlin.

We look very much forward to seeing you all in Essen in 2017.
Petra Platen and Alexander Ferrauti
Presidents, 22nd Annual ECSS Congress

MetropolisRuhr

5 reasons to visit the MetropolisRuhr area

- it is a lively cosmopolitan area
- it is famous for its social diversity
- it is home of numerous sporting activities
- it combines industrial history with modern and trendy culture
- it is easily accessible

Venue

Striking atmosphere

With spacious rooms, first-class technology and excellent service, the Congress Center Essen is an ideal venue for all kinds of events. The unique blend of industrial culture, modern design and spacious lawns in the centre of the Rhine-Ruhr metropolitan region provides the perfect backdrop to unique events.

Essen – the city of many possibilities

Essen, one of the top ten biggest cities in Germany, is located in the middle of the Ruhr metropolitan region.

The outstanding transportation infrastructure and the Düsseldorf Airport only 20 minutes away, make arrival and departure very convenient. The efficient public transport network on-site allows for quick access to all the city's highlights.

In just five minutes' walk, you will reach the popular dining and nightlife area Rüttenscheider Straße - simply called "Rü" by Essen locals. In this district, you will find a vibrant, authentic scene where local pubs invite you to relax.

In just five minutes on the U 11, you will reach the city centre, with a rich cultural offering, a bustling pedestrian area and numerous cafes and restaurants.

Exhibition

The ECSS congress exhibition presents the latest products and services in sport science, from nutrition and performance enhancing supplements to physiological and biomechanical analysis and measurements, as well as state-of-the-art training devices and wearable technologies also. Giving you access to the latest information and solutions in sport science, the ECSS MetropolisRuhr 2017 exhibition will host around 60 international exhibitors.



ECSS Young Investigators Award

One of the key objectives of the ECSS is to promote junior scientists and foster state-of-the-art research. For this reason, the ECSS established the Young Investigators Award (YIA).

At ECSS MetropolisRuhr 2017, young scientists will again have the opportunity to enter this prestigious competition for scientific excellence, where outstanding scientific research will be presented. A jury consisting of the ECSS Scientific Board and ECSS Scientific Committee grants the awards based on an oral and mini-oral presentation for the top ten presentations.

GSSI Nutrition Award

Designed for the broad area of sports nutrition and high performance, the GSSI Nutrition Award is open for submissions from the ECSS MetropolisRuhr 2017 congress nutrition section. Throughout the congress, two independent ECSS reviewers and one GSSI representative will evaluate five finalists based on industry value and scientific excellence of their research. The winners will be announced during the GSSI Nutrition Award Ceremony.

Aspetar Excellence in Football Research Award

The aim of the "Excellence in Football Research Award" is to attract and support novel, applied research projects with relevance to football (soccer). Although this does not exclude basic science studies, the award is aimed at stimulating more research in applied science with potential applications to the football pitch. One winner will be announced during the Aspetar Excellence in Football Research Award Ceremony.

Committees

ECSS Executive Board Tim Cable – President (QAT), Marco Narici – Past President (GBR), Joan L. Duda – President Elect (GBR), Erich Müller (AUT), Bente Klarlund Pedersen (DEN), Stephen Seiler (NOR).

Congress Presidents Alexander Ferrauti (GER), Petra Platen (GER), Thomas Jaitner – Congress Vice President (GER).

Chairs of Local Scientific Committee Petra Platen (GER), Thomas Jaitner (GER), Elke Grimminger (GER).

Chairs of the Organising Committee Alexander Ferrauti (GER), Henning Jarck (GER).

Members of the Organising Committee Anna Adamski (GER), Ulrich Bartmus (GER), Alexander Doeweling (GER), Daniela Fett (GER), Janina Fett (GER), Ulf Gebken (GER), Volker Grabow (GER), Marco Hagen (GER), Thomas Henke (GER), Dirk Hoffmann (GER),

Gernot Jendrusch (GER), Kilian Kimmeskamp (GER), Marius Kirmse (GER), Till Krusche (GER), Martin Lemke (GER), Vanessa Oertzen-Hagemann (GER), Christian Raeder (GER), Christoph Schneider (GER), Katharina Trompeter (GER), Jan Venzke (GER), Thimo Wiewelhove (GER).
Members of the ECSS Scientific Board Flemming Dela – Chair (DEN), Jan Cabri – Secretary (NOR), Paul Greenhaff (GBR), Albert Gollhofer (GER), Martin Halle (GER), Susanna Hedeborg (SWE), Luc van Loon (NED), Abigail Mackey-Sennels (GBR), Nicole Wenderoth (SUI).
Members of the ECSS Scientific Committee José Antonio López Calbet (ESP), Annalisa Cogo (ITA), Wim Derave (BEL), Peter Federolf (NOR), Taji Finni (FIN), Markus Gruber (GER), Jörn Wulff Helge (DEN), Ylva Hellsten (DEN), Pierre-Nicolas Lemyre (NOR), Johannes Van Lieshout (NED), Maria Francesca Piacentini (ITA), Afroditi Stathi (GBR), Cecile Thogersen-Ntoumani (AUS), Janice L. Thompson (GBR).
ECSS Office Thomas Delaveaux (GER), Elias Tzolakidis (GRE), Steffen Neubert (GER), Juliane Leyva Gonzalez (GER), Tuulia Hokkanen (FIN), Alexandra Zavadska (SVK), Kate Nuttall (GBR).

Key Dates

15th December 2016, 24:00 CET

15th February 2017, 24:00 CET

1st April 2017, 24:00 CET

1st April 2017, 24:00 CET

1st May 2017, 24:00 CET

Abstract submission opening and opening of registration

Abstract submission deadline

Notification to authors about acceptance

End of Early bird registration

Deadline for registration for presenting authors

Registration fees

ECSS MetropolisRuhr 2017

Registration fee

ECSS Member*

Non-Member

Student ECSS Member*

Student Non-Member

Accompanying person**

Early Bird Registration

Before or on 1st April 2017, 24:00 CET

450 €

600 €

300 €

400 €

250 €

Late Registration

On or after 2nd April 2017, 0:00 CET

500 €

650 €

350 €

450 €

300 €

* Save on registration fee by becoming an ECSS Member 2017 before registering for ECSS MetropolisRuhr 2017.

** Social programme only – no access to scientific sessions granted.

Registration fee for participants includes

- admission to all scientific sessions
- admission to exhibition
- opening ceremony

- opening reception¹
- congress material, congress bag, Final Programme – in print, Book of Abstracts – in print on demand 25,-€/35,-€ on-site
- Coffee breaks (6) and lunches (3) at the congress venue¹

¹Pre-booking required. Only granted when pre-booking received!

Travel information

By airplane

ECSS MetropolisRuhr 2017 can be reached from several airports: Düsseldorf (DUS), Dortmund (DTM), Cologne (CGN), and Frankfurt (FRA). Amsterdam Schiphol (AMS) in the Netherlands is also an option and very well connected to the venue.

SAVE UP TO 20% ON TRAVEL WITH THE STAR ALLIANCE™ NETWORK

The Star Alliance member airlines are pleased to be appointed as the Official Airline Network for ECSS MetropolisRuhr 2017.

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By train

Essen main railway station is very well connected by ICE, Eurocity and Interregio trains with German, Belgian and Dutch cities. A frequent ICE connection from Düsseldorf Airport station only takes 22 minutes to Essen main station. All other international Airports in the area, such as Dortmund, Cologne or Frankfurt, have excellent ICE connections to Essen (daily). For more information about travelling by train visit **www.bahn.com**.

By car

To reach the congress venue conveniently use motorway A3, A40, A42 or A52.

Accommodation

The ECSS has negotiated a large number of hotel rooms at attractive rates in several categories of hotels ranging from budget to 4-star. These rates are only available through the congress website. You will find that all of these hotels offer quality accommodation including breakfast. Most hotels have car park facilities and are in close proximity to the congress venue.

Please find recent updates on **www.ecss-congress.eu/2017**



www.youtube.com/user/ECSSTV



@ECSS2017 #ECSS2017

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Scientific Programme

PLENARY SESSIONS

Individuality - Social and Physiological Perspectives for Fitness and Health ^(A)

06.07.2017 - PL-PS02 in Lecture Room: "Europa/West"

- Chair: Bente Klarlund Pedersen [Denmark]
- Speakers:
 - Roberta Sassatelli [Italy]: Consumers, Active Leisure and Performative Rationalization
 - Hans Hopfner [Switzerland]: Individuality in Sport - A Physiological Perspective

Development of Talented Players to World Champions in Football ^(A) - Date: 06.07.2017 - PL-PS02 in Lecture Room: "Europa/West"

- Chair: Joan Ouda [United Kingdom]
- Speakers:
 - Mark Williams [United Kingdom]: Developing Elite Football Players: Practice, Specificity, and Plasticity
 - Tim Meyer [Germany]: Scientific Support for Elite Football - Lessons From Brazil 2014

Back Pain - Prevention and Therapy in the Modern Society ^(A) - Date: 06.07.2017 - PL-PS03 in Lecture Room: "Europa/West"

- Chair: Frank Mayer [Germany]
- Speakers:
 - Deborah Falla [Germany]: New Insights into Motor Adaptation in Low Back Pain and Neck Pain: Implications for Sports Medicine and Rehabilitation
 - Monika Hasenbring [Germany]: Physical Activity and Biopsychosocial Moderation in Musculoskeletal Pain: How to Conceptualize Health-Promoting Activity?

Inclusion in Sport - Date: 06.07.2017 - PL-PS04 in Lecture Room: "Europa/West"

- Chair: Susanna Hedberg [Sweden]
- Speakers:
 - Gert-Peter Brüggemann [Germany]: Prostheses and orthoses - How do they affect Load Management?
 - P David Howe [United Kingdom]: The Business of Inclusive Sport: A Philosophical Anthropology of Utopia

INVITED SESSION

Physiology & Sports Medicine [PM]

The Role of the Systemic and Local Environment in Skeletal Muscle Homeostasis with Ageing and Exercise ^(A) - Date: 06.07.2017 - IS-PM01 in Lecture Room: "Deutschland/South"

- Chair: Abigail Mackay [Denmark]
- Speakers:
 - Fawad Kahl [Sweden]: The Systemic Environment and Aging: Influence of Lifestyle Factors and Biological Effects
 - Vuokko Kovanen [Finland]: Circulating MicroRNAs Body Composition and Muscle Performance
 - Abigail Mackay [Denmark]: Changing the Local and Systemic Environment to Improve the Adaptation of Human Skeletal Muscle

Exercise and the Brain - Date: 06.07.2017 - IS-PM02 in Lecture Room: "Europa/West"

- Chair: Stefan Schneider [Germany]
- Speakers:
 - Romain Meulen [Belgium]: Exercise, Neurotransmission and Neurogenesis
 - Stefan Schneider [Germany]: From Space to School - Neuro-Enhancement Through Exercise
 - Maria-Cristina Poldosini [Germany]: Effects of A Structured Exercise Program on the Relationship Between Cognition, Antioxidant Defence System and Vascular Function

Training Children's Hearts - Cardiac Adaptations to Exercise and Training in the Childhood Elite Athlete and Children with Heart Disease. - Date: 06.07.2017 - IS-PM03 in Lecture Room: "Deutschland/South"

- Chair: Craig Williams [United Kingdom]
- Speakers:
 - Guido Pielke [Canada]: Pediatric Cardiac Exercise Physiology in Health and Disease - Insights From Exercise Stress Imaging in Childhood Athletes and Children with Congenital Heart Disease
 - Craig Williams [United Kingdom]: Integration of Echocardiography and Cardiorespiratory Testing with Young Adolescents
 - Renate Oberholzer [Germany]: Exercise Performance and Training Adaptation of Young Athletes

Individualisation in Recovery Science - Date: 06.07.2017 - IS-PM04 in Lecture Room: "Deutschland/South"

- Chair: Tim Meyer [Germany]
- Speakers:
 - Anne Hecksteden [Germany]: Individualized Diagnosis of Fatigue and Recovery Needs
 - Shona Halson [Australia]: Individual Response to Interventions Supporting Recovery
 - Mathieu Middlefield [France]: Sleep and Recovery in Elite Athletes - A Good Example for Large Individual Variability

Hot Topics in Altitude Medicine and Altitude Training - Date: 06.07.2017 - IS-PM05 in Lecture Room: "Europa/West"

- Chair: Schmidt Walter [Germany]
- Speakers:
 - Bernd Blüthner [Germany]: The Brain in Acute Mountain Sickness and High Altitude Cerebral Edema
 - Walter Schmidt [Germany]: Hypoxia and Altitude - An Update Focusing on Performance, Training and Health
 - Laura A Garvican-Lewis [Australia]: Challenges of Competition and Performance at Altitude - How to Maximize the Response to Altitude

Fascia - An Extensively Overlooked Tissue - Date: 06.07.2017 - IS-PM06 in Lecture Room: "Deutschland/South"

- Chair: David Behn [Canada]
- Speakers:
 - Carla Stecco [Italy]: Anatomic and Physiologic Basics of the Human Fascial Network and its Relevance in Sport Science
 - Steffen Oesser [Germany]: The Impact of Nutrition on the Fascial System
 - David George Behn [Canada]: The Effects and Potential Mechanisms of Foam Rolling on Athletic Performance

The Individual Human Phenotype - Effects of Genetics, Epigenetics, Exercise and Nutrition - Date: 06.07.2017 - IS-PM07 in Lecture Room: "Europa/West"

- Chair: Wilhelm Bloch [Germany]
- Speakers:
 - Bernd Wollfart [Germany]: Genetic Aspects
 - Wilhelm Bloch [Germany]: Epigenetic Aspects
 - Luc Van Loon [Netherlands]: Individualized Prescription of Exercise and Nutrition

Dietary Nitrate As An Ergogenic Aid - Date: 06.07.2017 - IS-PM08 in Lecture Room: "Europa/West"

- Chair: Lex B Verdijk [Netherlands]
- Speakers:
 - Arni Vanhatalo [United Kingdom]: Dietary Nitrate As An Ergogenic Aid
 - Lex Verdijk [Netherlands]: Who Will Benefit From the Ergogenic Properties of Dietary Nitrate?
 - Louise Burke [Australia]: Practical Application of Dietary Nitrate Supplementation in Sports

Strategies for Optimizing Elite Endurance Exercise Performance ^(A) - Date: 06.07.2017 - IS-PM10 in Lecture Room: "Europa/West"

- Chair: Carsten Lundby [Switzerland]
- Speakers:
 - Asker Jeukendrup [United Kingdom]: Nutritional Strategies
 - Rent Rønnestad [Norway]: Periodization and High Intensity Interval Training
 - Carsten Lundby [Switzerland]: Altitude and Heat Training Strategies

Resistance Training in Youth Athletes ^(A) - Date: 06.07.2017 - IS-PM11 in Lecture Room: "Deutschland/South"

- Chair: Thomas Muehlbauer [Germany]
- Speakers:
 - Niel Armstrong [United Kingdom]: Youth Athlete Development
 - Rhodi Lloyd [United Kingdom]: Long-Term Athlete Development: The Role of Muscle Strength
 - Urs Granacher [Germany]: Effects and Dose-Response Relationships of Resistance Training in Youth Athletes



Muscle Carnitine: The Key Player in Muscle Fuel Selection? - Date: 06.07.2017 - IS-PM12 in Lecture Room: "Europa/West"

- Chair: Paul Greenhaff [United Kingdom]
- Speakers:
 - Bente Kahl [Denmark]: The Limitations to Fatty Acid Oxidation in the Transition From Moderate to High Intensity Exercise in Humans and the Mechanistic Basis of This Limitation
 - Stephan Krahenbühl [Switzerland]: The Impact of Carnitine Depletion on Tissue Carnitine Availability and Muscle Metabolism and Function
 - Francis Stephens [United Kingdom]: Increasing Muscle Carnitine Availability in Humans and Its Impact on Muscle Fuel Selection and Regulation in Exercise and Health

Macro and Micro Vascular Dysfunction: Adaptations to Exercise Training - Date: 06.07.2017 - IS-PM13 in Lecture Room: "Deutschland/South"

- Chair: Karen Birch [United Kingdom]
- Speakers:
 - Dick Thijssen [Netherlands]: Exercise Training: Vascular Adaptations in Function-Structure and the Role of Shear
 - Karen Birch [United Kingdom]: Exercise Training: Interval Exercise, Shear and Progenitor Cells
 - Yvonne Helsten [Denmark]: Exercise Training: Microvascular Adaptation to Exercise in Health and Disease

Exercise Testing and Training in Clinical Populations - From High Performance Sports to Patients ^(A) - Date: 06.07.2017 - IS-PM14 in Lecture Room: "Deutschland/South"

- Chair: Friederike Scharhag-Rosenberger [Germany]
- Speakers:
 - Friederike Scharhag-Rosenberger [Germany]: Exercise Testing in Clinical Populations
 - Jan Helgerud [Norway]: "Hit the Patient" - Strength and Endurance Training in Clinical Populations
 - Lars Donath [Switzerland]: Aerobic Exercise Intensity Prescription and High-Intensity Low Volume Exercise (HIVE) in Depressive Disorders

Social Sciences & Humanities [SH]

Leveraging Sport Events for Sport Participation and Development - Date: 06.07.2017 - IS-SH01 in Lecture Room: "MüSü"

- Chair: Marie-Luise Klein [Germany]
- Speakers:
 - Mike Wedel [United Kingdom]: Leveraging Sport Participation From Mega-Events: Translating Possibilities Into Policies
 - Lars Donath [Switzerland]: Sport Events and Sport Participation: Quest for A Research Agenda
 - Markus Kuschel [Germany]: The Inspirational Effect of Attending Sport Events on Sport Participation in A Metropolitan Setting: Evidence From Fila Women's World Cup 2011 in the Rhine-Ruhr Area

Stress Regulation and Physical Activity - Date: 06.07.2017 - IS-SH02 in Lecture Room: "LSüd"

- Chair: Sandra Klaparski [United Kingdom]
- Speakers:
 - Klaus Gerber [Switzerland]: Cardiorespiratory Fitness Moderates the Relationship Between Perceived Stress and Cardiovascular Risk Factors
 - Sandrine Isoard-Gautheir [France]: Does Physical Activity Moderate the Stress-Burnout Relationship?
 - Sandra Klaparski [United Kingdom]: Direct and Buffering Effects of Physical Activity on Health: A Role to Test and Examine the Stress Buffer Effect

Getting the Moves: Bodily Learning in Three Movement Contexts - Date: 06.07.2017 - IS-SH03 in Lecture Room: "LSüd"

- Chair: Larissa Schindler [Austria]
- Speakers:
 - Chiara Bassotti [Italy]: Incarnating A Kinesthetic Culture: on the Embodiment of Contemporary Dance
 - Larissa Schindler [Austria]: Vis-A-Vie: How to Learn Martial-Arts
 - Sophia Merli [Germany]: Becoming A Ballet Body: Reconfiguring Distributed Corporalities

Prevention of Sexual Harassment and Abuse in Sports - Date: 06.07.2017 - IS-SH04 in Lecture Room: "LSüd"

- Chair: Kari Fastang [Norway]
- Speakers:
 - Kari Fastang [Norway]: Preventing Sexual Harassment in Zambian Sport - The Voices of Athletes and Coaches
 - Mika Hardill [United Kingdom]: Child Sexual Abuse in Sport and Leisure Settings: An Analysis of Reports to UK Local Authorities
 - Gretchen Kerr [Canada]: "Willful Blindness" As A Contributor to Experiences of Sexual Harassment and Abuse in Sport

Doping Prevention - The Role of Coaches - Date: 06.07.2017 - IS-SH05 in Lecture Room: "LSüd"

- Chair: Laurie Patterson [United Kingdom]
- Speakers:
 - Laurie Patterson [United Kingdom]: Investigating UK-Based Coaches' Roles in the Fight for Clean Sport
 - Cornelia Blum [Austria]: Doping in Sport: West-Austrian Sport Teachers' and Coaches' Knowledge, Attitudes, and Behaviors
 - Philip Sliank [Canada]: The Nature of Coaches' Efficacy in Confronting Doping Athletes

How to Integrate Pedagogy of Health and Physical Education for School Subject? - Date: 06.07.2017 - IS-SH06 in Lecture Room: "LSüd"

- Chair: Yoshinori Okada [Japan]
- Speakers:
 - Yoshinori Okada [Japan]: Health and Physical Education From An Asian Perspective
 - Marc Cloes [Belgium]: Health and Physical Education From A European Perspective
 - Louise McKenna [Australia]: Exploring the Hete in Physical Education Teacher Education: An Australian Perspective

Volition in Sport and Physical Activity - Date: 06.07.2017 - IS-SH07 in Lecture Room: "LSüd"

- Chair: Michael Kellmann [Germany]
- Speakers:
 - Jürgen Beckmann [Germany]: Volition, Personality and Sport Performance
 - Anne-Marie Elbe [Denmark]: Volition in the Physical Activity Context: Measurement of Volition and Its Importance for Keeping Up Regular Exercise
 - Roy Baumeister [United States]: Strength Model of Volition

Serious Games in Sport and Health - Chances and Challenges - Date: 06.07.2017 - IS-SH08 in Lecture Room: "Berlin/West"

- Chair: Josef Wiemeyer [Germany]
- Speakers:
 - Josef Wiemeyer [Germany]: Serious Games in Sport and Health - A Critical Review
 - Amenda Staines [United States]: Friend or Foe? Competition Versus Cooperation in Games for Health
 - Michael Kickmeier-Rust [Austria]: Personalizing Educationally-Inspired Gaming Experiences

The Psychology of Judgments and Decision-Making in Sport and Exercise - Date: 06.07.2017 - IS-SH09 in Lecture Room: "LSüd"

- Chair: Markus Raab [Germany]
- Speakers:
 - Markus Raab [Germany]: The Power of Simplicity: Why Less-Is-More in Sport and Exercise Choices
 - Hennin Plessner [Germany]: The Power of Parallel Processing: Experts Use of Multiple Cues in An Instant
 - Clare Mackintosh [Australia]: The Need to Take Complexity and Context of Decision-Making Into Consideration

Biomechanics & Neuromuscular [BN]

Specificity of Balance and Balance Training ^(A) - Date: 06.07.2017 - IS-BN01 in Lecture Room: "Berlin/West"

- Chair: Markus Gruber [Germany]
- Speakers:
 - Fay Horak [United States]: The Specificity of Postural Control and Balance in Patients with Movement Disorders
 - Markus Gruber [Germany]: Task Specificity of Balance Training
 - Wolfgang Töde [Switzerland]: Balance Training - Specific Adaptations with Age

Brain and Neuromuscular Function in Old Age - Implications for Cognitive and Motor Performance ^(A) - Date: 06.07.2017 - IS-BN02 in Lecture Room: "Berlin/West"

- Chair: Marco Nario [United Kingdom]
- Speakers:
 - Oron Levin [Belgium]: Brain Metrics and Impaired Motor Performance: The Effects of Aging on Structural and Functional Interhemispheric Interactions
 - Marco Nario [United Kingdom]: Neuromuscular Protective Effects of Regular Physical Activity
 - Natasha Zelazo [Israel]: Relationship Between Postural Control and Posture-Unrelated Attention Control in Advanced Age

Muscle-Tendon Unit Properties and Running Economy - Date: 06.07.2017 - IS-BN03 in Lecture Room: "Berlin/West"

- Chair: Adamantios Arampatzis [Germany]
- Speakers:
 - Andreas Arampatzis [Germany]: Tendon Factors Affecting the Metabolic Cost of Running
 - Brian Macintosh [Canada]: Skeletal Muscle Energetics and Tendon Stiffness: Implications for Energy Cost of Running
 - Masashi Isobe [Japan]: Musculoskeletal Characteristics and Function During Running for Top Level Endurance Runners

Residual Force Enhancement - An Underrated Neuromuscular Property for Sport & Health - Date: 06.07.2017 - IS-BN04 in Lecture Room: "Berlin/West"

- Chair: Daniel Hahn [Germany]
- Speakers:
 - Walter Herzog [Canada]: Residual Force Enhancement - The Neglected Neuromuscular Property in Sport and Health
 - Daniel Hahn [Germany]: The Stretch-Shortening-Cycle Revisited: How Residual Force Enhancement Contributes to Increased Performance
 - Geoffrey A. Power [Canada]: Maintenance of Neuromuscular Function in Acutely and Chronically Altered Neuromuscular States by Mechanisms of Residual Force Enhancement

Variability and Coordination in Human Movement - Date: 06.07.2017 - IS-BN05 in Lecture Room: "Berlin/West"

- Chair: Erich Müller [Austria]
- Speakers:
 - Erich Müller [Austria]: Motor Constraints and Functional Variability
 - Katherine A Boyer [United States]: Examining Movement Coordination and It's Variability to Understand Pathological Gait
 - Peter Federer [Austria]: Balance and Coordination

New Insights in Biomechanics of Muscle Contraction - Date: 06.07.2017 - IS-BN06 in Lecture Room: "Berlin/West"

- Chair: Tobias Siebert [Germany]
- Speakers:
 - Christian Rode [Germany]: New Insights in Microstructure and Muscle Force Generation
 - James Wakeling [Canada]: Multidimensional Models for Predicting Muscle Structure and Fascicle Penetration
 - Tobias Siebert [Germany]: Influence of Muscle Compression on Muscle Force: Experimentation and Simulation

Big Data in Sports - Date: 06.07.2017 - IS-BN07 in Lecture Room: "Berlin/West"

- Chair: Martin Lames [Germany]
- Speakers:
 - Andreas McCormack-Smith [Germany]: Big Data in Sports: The Developer Perspective
 - Patrick Lauer [United States]: Big Data in Sports: The Analytics Perspective
 - Anna Voloschova [Portugal]: Big Data in Sports: The Sports Perspective

Muscle Emp Activities in Sport Sciences - Date: 06.07.2017 - IS-BN08 in Lecture Room: "Berlin/West"

- Chair: Taija Finni [Finland]
- Speakers:
 - Dario Farina [Germany]: Analysing and Interpreting Electromyography
 - Francois Hug [France]: Muscle Synergies in Different Exercises
 - Taija Finni [Finland]: Muscle Inactivity and Activity During Normal Daily Life

Modalities of Interpersonal Coordination - Date: 06.07.2017 - IS-BN09 in Lecture Room: "Berlin/West"

- Chair: Alfred Ellenberg [Germany]
- Speakers:
 - Cordula Vesper [Hungary]: Availability of Shared Visual Information in Joint Action
 - Gerd Schmitz [Germany]: Auditory Information Modulates Interpersonal Coordination
 - Peter Keller [Australia]: Individual Differences in Temporal Anticipation and Adaptation During Real-Time Interpersonal Coordination in Joint Drumming

Exchange Symptom [EX]

ECSS-ECSS Exchange Symposium: Exercise Performance and Health Promotion - Date: 06.07.2017 - IS-EX01 in Lecture Room: "Deutschland/South"

- Chair: Jie Liu Zhao [China]
- Speakers:
 - Jie Liu Zhao [China]: Development and Validation of Body Fat Prediction Equation in 20-69 Adults
 - Mai Wang [China]: The Health Behavior of School Aged Children in Tibet of China

JSPSM-ECSS Exchange Symposium: Challenging Physical Inactivity in Childhood and Adolescence - What Cross-Border Evidence and Issues do we have? - Date: 06.07.2017 - IS-EX02 in Lecture Room: "Deutschland/South"

- Chair: Ryoichi Nagatomo [Japan]
- Speakers:
 - Koya Suzuki [Japan]: Comparison of Physical Activity and Fitness of Adolescents in Major Asian Cities: The Asia-Fit Study
 - Kelita Kamijo [Japan]: The Relation of Childhood Fitness to Executive Function and Memory
 - Lars Bo Andersen [Norway]: Physical Activity and Children: Focus on School Based Interventions

ACSM-ECSS Exchange Symposium: The Compelling Link Between Physical Activity and Your Body's Defense System - Date: 06.07.2017 - IS-EX03 in Lecture Room: "Deutschland/South"

- Chair: Romain Meusen [Belgium]
- Speakers:
 - Nail Walsh [United Kingdom]: Practical Strategies to Avoid Immune Impairment in the Endurance Athlete and Warrior
 - David Weman [United States]: The Immune System does its Job better in the Physically Active

SPONSORED SESSIONS [SP]

Nutrition for Muscle and Tendon Adaptation - Sponsored by GSSI - Date: 06.07.2017 - IS-SP01 in Lecture Room: "Europa/West"

- Chair: James Carter [United States]
- Speakers:
 - Luc Van Loon [Netherlands]: Dietary Protein and the Skeletal Muscle Adaptive Response
 - Emma Stevenson [United Kingdom]: The Role of Antioxidants in Exercise Recovery and Adaptation
 - Keith Barr [United States]: Nutrition and Exercise to Minimize Musculoskeletal Injury and Accelerate Return to Play

Sports Engineering Methods for Sports Science: Wearable Sensors and Machine Learning - Sponsored by Adidas - Date: 06.07.2017 - IS-SP02 in Lecture Room: "Europa/West"

- Chair: Björn Eskofier [Germany]
- Speakers:
 - Valentina Camomilla [Italy]: In-Field Use of Wearable Magneto-Inertial Sensors for Motor Capacity, Sport Performance, or Risk of Injury Evaluation: State of the Art and Perspectives
 - Björn Eskofier [Germany]: Wearable Computing Systems and Machine Learning for Sports Science Research
 - Veit Seiner [Germany]: When Modeling Becomes the Key to Understanding: The Power of Modeling Approaches in Sports Science and Engineering

Achieving Top Performance and Injury Prevention in Football: From Science to Practice - Sponsored by Aspetar - Date: 06.07.2017 - IS-SP03 in Lecture Room: "Europa/West"

- Chair: George Nassiss [Qatar]
- Speakers:
 - George Nassiss [Qatar]: Training Load Monitoring, Performance Enhancement and Injury Risk
 - Leslie Podlog [United States]: Psychological Predictors of Injuries in Team Sports
 - Tim Gabbert [Australia]: An Integrated Model for Health and Performance Management in Football

^(C) Clinical Track

^(A) Applied Track

