

Congress Program

DAY 1 - Monday 11th of March



12:00 -	REGISTRATION
15:00	Vesa Linnamo & Stefan J. Lindinger ; Opening of the Congress
15:10	Vesa Linnamo ; Emeritus prof. Paavo Komi Memorial lecture
15:30 KEYNOTE	Erich Müller ; Research in Skiing - past and future perspectives

Session 1: Young Investigator Award (YIA) competition

16:00	Julian Fritz ; Knee joint loading during loaded squat jump landing (YIA)
16:15	Veronica Bessone ; Torso and hip flexions influence ski jump landing impact (YIA)
16:30	Matt Cross ; Force output in giant slalom (YIA)
16:45	Clément Delhaye ; Kinetic and kinematic turn switch detection in giant slalom (YIA)
17:00	COFFEE AND TECHNICAL EXHIBITION
17:45	Roman Bachmann ; Automatic 3d motion capture in alpine skiing (YIA)
18:00	Jingjing Xue ; A comparison of physiological variables between Chinese national cross country skiers and long distance runners (YIA)
18:15	Aaron Martinez ; Development of an automatic alpine skiing turn detection algorithm based on a simple sensor setup (YIA)
18:30	Christina Mishica ; Heart rate variability in young athletes when should we measure it and does it relate to performance (YIA)
18:45	Valeria Rosso ; Measures of impairment in cross-country sit skiing (YIA)
19:00	Anni Ruostekoski ; Acute effects of intense xc skiing exercise and exercise environment on serum bdnf igf1 and cortisol (YIA)
19:15	Christian Weich ; The attractor method - a novel tool to highlight subtle differences in cross-country ski skating techniques (v1 vs. v2)
20:00	GET TOGETHER EVENING AND TECHNICAL EXHIBITION

DAY 2 - Tuesday 12th of March

Session 2: Biomechanics in Alpine Skiing

09:00 KEYNOTE	David Bacharach ; "Bridging the gap between science and practice in winter sport athletes"
09:30 INVITED	Josef Kröll ; Application of force-velocity-power-profiling to Alpine and Nordic skiing disciplines
09:50 - 10:50	Oral presentations
10:50	COFFEE AND TECHNICAL EXHIBITION

11:30 - 13:00 Oral presentations

13:00 LUNCH

Session 3: Physiology and Training in Cross-Country Skiing & Biathlon

14:30 KEYNOTE Øyvind Sandbakk; Modern training concepts in Cross-Country skiing

15:00 INVITED Marko Laaksonen; Biathlon - has the sport changed during the past decades and can science keep up?

15:20 INVITED Ilkka Heinonen; Limiting cardiovascular factors of cross-country skiing performance

15:35 - 16:50 Oral presentations

16:50 COFFEE, POSTERS AND TECHNICAL EXHIBITION

Session 4: Posters

16:50 - 18:00 Poster presentations

FREE EVENING

DAY 3 - Wednesday 13th of March

Session 5: Talent and injury in Alpine Skiing

09:00 KEYNOTE Maarit Valtonen; Preventive medicine in endurance winter sports

09:30 INVITED Christian Raschner; Talent development in ski racing

09:50 -11:35 Oral presentations

11:35 COFFEE AND TECHNICAL EXHIBITION

Session 6: Paralympic Skiing

12:15 INVITED Kaspar Wirz; A cross-country skiing coach perspective on 40 years practical work using scientific input - challenge and chance

12:30 INVITED Laura Gastaldi & Magdalena Karczewska-Lindinger; Race analysis in Nordic sit skiing

12:50 INVITED Maren Goll; Paralympic alpine skiing

13:10 - 13:55 Oral presentations

13:55 LUNCH

Session 7: Free afternoon - skiing

DAY 4 - Thursday 14th of March

Session 8: Cross-Country Skiing

- 08:30 KEYNOTE **Walter Herzog**; Muscle Mechanics and Energetics in Cross-Country Skiing
- 09:00 INVITED **Barbara Pellegrini**; Relationships between cross-country skiing economy and athletes' skills
- 09:20 INVITED **Thomas Stöggl**; Altered demands in cross-country skiing
- 09:40 -10:25 Oral presentations
- 10:25 **COFFEE AND TECHNICAL EXHIBITION**
- 11:05 - 12:20 Oral presentations

Session 9: Ski Jumping

- 12:20 INVITED **Mikko Virmavirta**; Do ski jumpers still need to be light?
- 12:40 - 13:10 Oral presentations
- 13:10 **LUNCH**

Session 10: Air drag and Aero Dynamics in Skiing

- 14:30 INVITED **Stefan J. Lindinger**; Air drag in skiing
- 14:50 - 16:05 Oral presentations

Session 11: Coaching & Science

- 16:10 **PODIUM DISCUSSION "COACHING now and in 2050?"**

Session 12: Laboratory and company demonstrations

- 17:30 - 19:30 Laboratory and company demonstrations
- 20:00 **CONGRESS DINNER**

DAY 5 - Friday 15th of March

Session 13: Methodology and Technology in Skiing

- 09:00 INVITED **Masaki Takeda**; Utilization of high precision kinematic global navigation satellite system cross-country skiing technique detection
- 09:20 - 11:20 Oral presentations

Session 14: Closing ceremony

- 11:20 **Stefan J. Lindinger**; ICSS VISIONS
- 11:40 - 12:00 **Vesa Linnamo**; CLOSING of the ICSS2019