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