



## Technological innovations in physical activity and elite sports

Research seminar in Vuokatti, Finland 19. - 20.3.2009

**Congress venue:** Snowpolis, Kidekuja 2, Vuokatti

**Registration fee** (program, coffee, dinner and lunch): 135 €  
95 € for students and HyteNet-members

For registration please visit:

<https://fbhost.bms.fi/asiakkaat/snowpolisfb/index.asp?k=aizrihcwkwfxwdyvjdncf>

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## PROGRAM

**Thursday, March 19<sup>th</sup>**

Chairs Prof Vesa Linnamo and Prof Paavo Komi

- 14.00: Opening of the seminar: Mayor of Sotkamo, Petri Kauppinen  
Head of the department of Biology of Physical Activity,  
Prof Keijo Häkkinen
- 14.10: Technological innovations in the Department of Biology of Physical Activity:  
Professor Emeritus Paavo Komi (University of Jyväskylä, Finland)
- 14.40: Swedish Olympic sports: Dr Hans-Christer Holmberg (Mid Sweden University)
- 15.10: Technology and research co-operations in Austrian alpine and cross-country ski production:  
Dr Stefan Lindinger (University of Salzburg, Austria)
- 15.40: Coffee break
- 16.00: Heart rate and heart rate variability: A practical tool or a research toy?:  
Dr Mikko Tulppo (Verve, Oulu, Finland)
- 16.30: The effects of cooling vest on cycling performance in warm and humid conditions:  
Dr Juha Oksa (Finnish Institute of Occupational Health, Oulu, Finland)
- 16.45: Effects of waxing properties to the force production in classical skiing:  
Jussi Piirainen (Vuokatti Sports institute, Finland)
- 17.00: Reversed engineering, using laser scanning in development of sport products - with some  
examples from winter sports: Mikael Swarén (Mid Sweden University)
- 17.15: Benefit of pole force measurements in XC-skiing: Dr Walter Rapp (University of Tübingen,  
Germany)
- 20.00 Dinner





## Friday, March 20<sup>th</sup>

Chairs Prof Keijo Häkkinen and Prof Janne Avela

- 9.30: Utilization of technology in strength training: Prof William Kraemer (University of Connecticut, USA)
- 10.00: Modern technology helps sports applied research and scientific service: Prof Jukka Viitasalo (Research Institute for Olympic Sports, Jyväskylä, Finland)
- 10.30: Sportsman profile based on jumping strategies and online force feedback system during tethered swimming: Prof Vojko Strojnik (University of Ljubljana, Slovenia)
- 11.00: How to mend a broken heart: Prof Tatu Juvonen (University of Oulu, Finland)
- 11.20: Coffee
- 11.45: Effects of the heart rate based recovery period on hormonal and neuromuscular responses during strength training: Jarmo Piirainen (University of Jyväskylä, Finland)
- 12.00: Biomechanical comparison of MBT shoe walking with barefoot walking on sand: Juha-Pekka Kulmala (University of Jyväskylä, Finland)
- 12.15: Kinetic and kinematic changes on MBT shoe walking induced by 4 weeks of MBT shoe walking intervention: Tahir Masood (University of Jyväskylä, Finland)
- 12.30: From innovations to business; company's perspective: CEO Anssi Lipsonen (HUR Labs, Finland)
- 12.45: Sports technology research in Vuokatti: Prof Vesa Linnamo (University of Jyväskylä, Finland)
- 13.05: Closing the seminar: Prof Janne Avela (University of Jyväskylä, Finland)

13.15 Lunch

## Saturday, March 21<sup>st</sup>

Vuokatti Ski Competition:

[http://www.kainuunliikunta.fi/tapahtumat/vuokatti\\_hiihto/vuokatti\\_hiihto\\_in\\_english/](http://www.kainuunliikunta.fi/tapahtumat/vuokatti_hiihto/vuokatti_hiihto_in_english/)

