



Spring Sport Science Summit

16 - 19 September 2024 @ Potchefstroom

Pre-Conference Workshops – 16 September 2024

Prof. Ben Coetzee (Morning session: 09:00 – 13:00)

Workshop 1: Nervous system activation for optimal movement and sport performance

Building K3, Gymnastic Hall

Group size capped to 30

9:00-09:05 : Welcoming and introduction to Nervous system activation

9:05-09:25 : Physiological principles and mechanisms that underlie disruptions in somatosensory input

9:25-10:05 : Muscle activation patterns testing = basic muscle tests and other techniques to evaluate muscle activation of the primary muscles

10:05-10:20 : Breathing techniques –proof of the nervous system activation effect, types of techniques, and practical application

10:20-11:05 : Neurolymphatic reflex points - proof of nervous system activation effect, types of techniques, and practical application

11:05-11:20 : The visual system - proof of the nervous system activation effect, types of techniques, and practical application

11:20-11:35 : Vestibular and auditory system - proof of the nervous system activation effect, types of techniques, and practical application

11:35-11:45 : Force absorption and reflex actions- proof of nervous system activation effect, types of techniques, and practical application

11:45-11:50 : Isometric contractions - proof of the nervous system activation effect, types of techniques, and practical application

11:50-11:55 : Cross-over effect and tactile stimulation - proof of the nervous system activation effect, types of techniques, and practical application

11:55-12:00 : Other techniques and aspects to consider

12:00 : Conclusion

13:00 : Lunch

Bert Moolman (Morning session: 09:00 – 13:00)

Workshop 4: Improving the rate of force development in athletes

Building K21, Room 229 & CHHP Specialized Equipment & Circuit area: Practical Sessions

Group size capped to 25

Additional Facilitators

Jana Storm, Kyra Duvenage, Marike Jackson

09:00 – 09:05 : Welcoming and introduction

09:05 – 10:00 : Lecture on the theory

10:00 – 11:00 : Practical Session 1 (applying the theory)

11:00 – 12:00 : Practical Session 2 (applying the theory)

12:00 : Conclusion

13:00 : Lunch

Prof. Ankebe Kruger (Morning session: 09:00 – 13:00)

Workshop 5: Sport Psychology: A game changer.

Sports Village, Room G17

Group size capped to 25

Additional Facilitator

Dr Michelle Bach

9:00 – 10:00 : Introduction to Sport Psychology.

10:00 – 11:00 : Performance under pressure.

11:00 – 12:00 : Mental skills training

12:00 : Conclusion

13:00 : Lunch

Jean Stofberg (Afternoon session: 14:00 – 17:00)

Workshop 3: The use of force plate technology in the ACLR rehabilitation process.

**Room K229: Theory & CHHP Specialized Equipment & Circuit area:
Practical Sessions**

Tentative program: (Group size capped to 25)

Additional Facilitators

Cor Leijenaar, Robyn Murphy, Lizaan Enslin, Jene Gallon

13:00 : Lunch

14:00 – 14:30 : Introduction and Lecture on the theory

14:30 – 15:00 : Rotation 1: Early-stage testing – Balance and Squat Assessment

15:00 – 15:30 : Rotation 2: Intermediate stage testing – Countermovement Jump and Drop Jump Assessment

15:30 – 16:00 : Rotation 3: Late phase testing – Unilateral Assessment

16:00 – 17:00 : Rotation 4: Return to play testing – Force – Velocity Profiling with Squat Jumps and the Isometric mid-thigh pull

17:00 : Conclusion

Prof. Mark Kramer (Afternoon session: 14:00 – 17:00)

Workshop 2: Biomechanics - Using low-cost alternative technologies to evaluate performance.

Building K3, Gymnastic Hall and G01

Group size capped to 28

Additional Facilitators

Dr Clement Gambelli, Dr Samantha Kahts-Kramer, Dr Mariaan Stofberg

13:00 : Lunch

14:00-14:30 : Brief introduction to the workshop, the agenda, and expected outcomes

14:30-15:00 : Practical Application

Group 1 : Using the MyJump2 app to evaluate jumping mechanics

Group 2 : CMJ evaluation using the OpenCap app

Group 3 : Isometric Mid-Thigh Pull using strain-gauges

Group 4 : Isometric knee extensor testing using strain-gauges

15:00-16:00 : Practical Application

Group 1 : CMJ evaluation using the OpenCap app

Group 2 : Using the MyJump2 app to evaluate jumping mechanic

Group 3 : Isometric knee extensor testing using strain-gauges

Group 4 : Isometric Mid-Thigh Pull using strain-gauges

16:00-16:30 : Practical Application

Group 1 : Isometric knee extensor testing using strain-gauges

Group 2 : Isometric Mid-Thigh Pull using strain-gauges

Group 3 : CMJ evaluation using the OpenCap app

Group 4 : Using the MyJump2 app to evaluate jumping mechanics

16:30-17:00 : Practical Application

Group 1 : Isometric Mid-Thigh Pull using strain-gauges

Group 2 : Isometric knee extensor testing using strain-gauges

Group 3 : Using the MyJump2 app to evaluate jumping mechanics

Group 4 : CMJ evaluation using the OpenCap app

17:00 : Conclusion