Biomechanical modelling for sport performance, prevention and recovery *

***no programming skills required**

Professional Workshop Programme

25th of February 2025

Fundamentals of Biomechanics and MSK Modelling

Time	Session
9:00 am	Basics of biomechanics and its relevance in sport recovery
10:00	Application of MSK modelling in clinical and field – part 1
10:30	Coffee break
10:45	Application of MSK modelling in clinical and field – part 2
11:15	Data preparation of motion capture from (.c3d) files into OpenSim format using MOtoNMS pipline – part 1
12:15	Lunch break
13:15	Data preparation of motion capture from (.c3d) files into OpenSim format using MOtoNMS pipline – part 2
14:15	Basic musculoskeletal modelling in OpenSim

16:15	Coffee break and Day 1 Q&A
16:45	End of Day 1

26th of February 2025

Advanced Dynamics and Simulation Techniques

Time	Session
9:00 am	Rationale and application of assessing dynamics from kinematics using novel simulation techniques
10:30	Coffee break
10:45	Data preparation of kinematics from IMUs and/or OpenCap into OpenSim format
12:15	Lunch break
13:15	Basic simulation modelling in OpenSim
16:15	Coffee break and Day 2 Q&A
16:45	End of Day 2