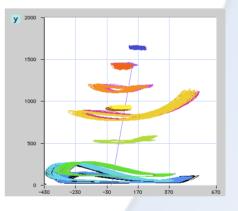


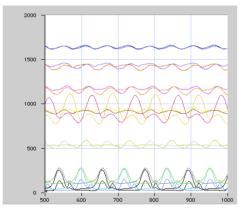
# University of Verona Faculty of Exercise and Sport Sciences

### **MAIN RESEARCH TOPICS**

- Bioenergetics and biomechanics of natural and assisted human locomotion
- Locomotion in motor disability
- Sports biomechanics
- Development of new tools and methods for evaluating the biomechanics and bioenergetics of human locomotion in healthy subjects and in patients with neuromotor disabilities
- Portable systems for measuring physical activity during daily and leisure activities









## MAIN EQUIPMENT

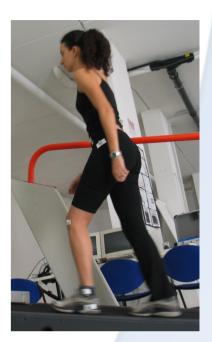
- Force platforms (Kistler 9865 1 kHz, AMTI AMTI, BP900900-2K-CTT)
- 8 cameras gait analysis system (Vicon MX, 500 kHz)
- Telemetric 16-channel EMG (Aurion ZeroWire)
- Portable metabolic unit (3, Cosmed K4 b2)
- Treadmill (H/P Cosmos Saturn 300/100r)
- Cardio-impedance system for non-invasive recording of cardiac output (Physioflow Enduro)
- Ergodynamometer Cybex NORM
- Optojump
- Force. Torque measuring system in cycling (SRM)
- Photoelectric cells with stop watches

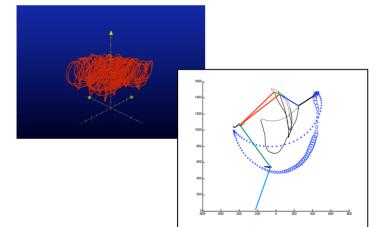


## University of Verona Faculty of Exercise and Sport Sciences

### MAIN ONGOING RESEARCH PROJECTS

- Analysis of the trajectory of the center of mass during locomotion at different speeds
- Contribution of the upper limbs to the biomechanics of different sports and of recreative types of locomotion
- Biomechanical analysis of Tai Chi
- · Energy cost and mechanical work of running in elite athletes
- · Bioenergetics of ultra marathon running
- Full body walker assisted gait analysis in patients with PCI





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