



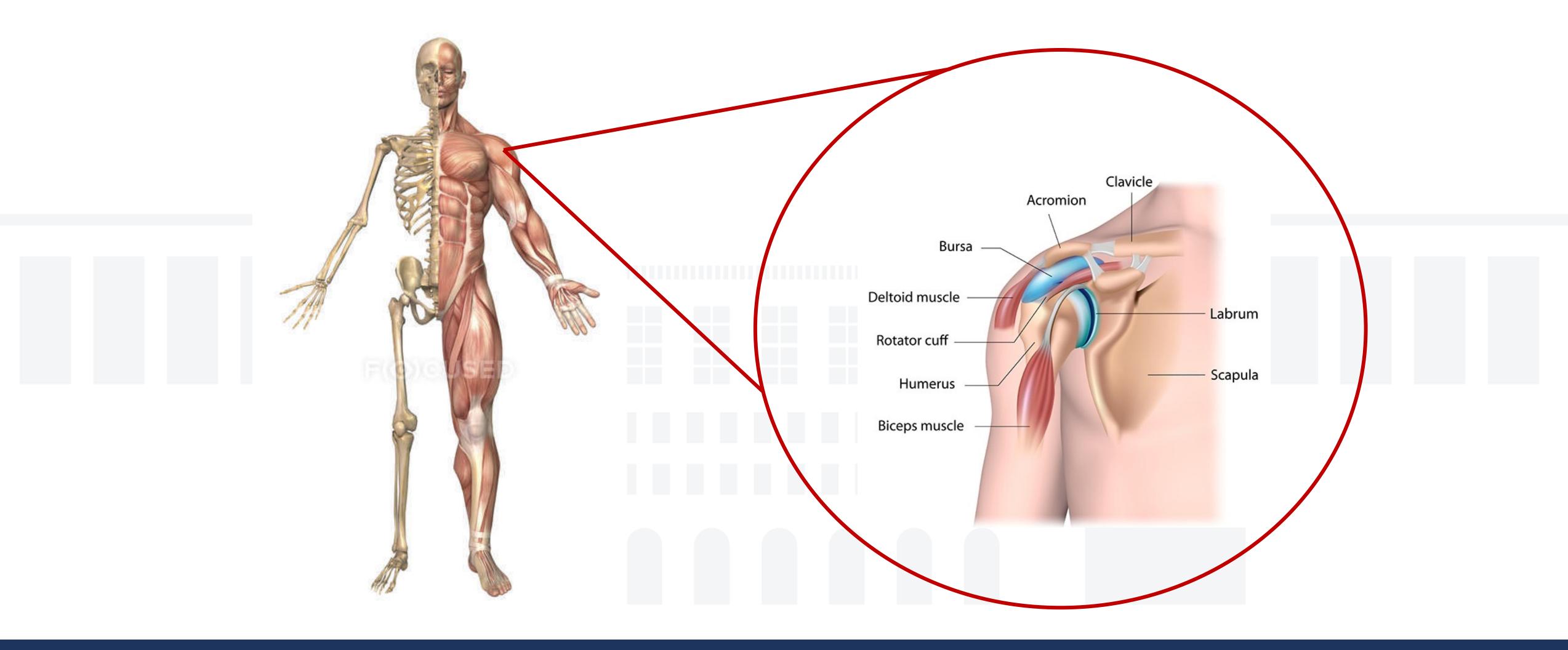
Alessandra Raffini, PhD Student at BioingTS

# RESEARCH PROJECT: Study of the kinematic of shoulder movement in competitive sports subjects

#### **RESEARCH INTERESTS:**

- Motion analysis
- Biomechanics
- Signal processing
- Tissue Engineering

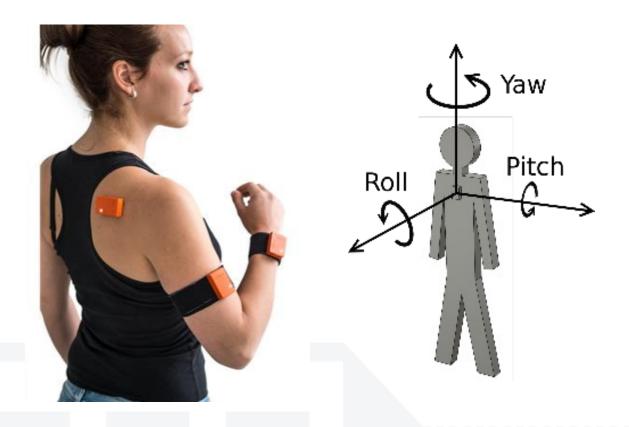
### Shoulder's anatomy





### Materials and methods

#### **INERTIAL SENSORS**



#### sEMG



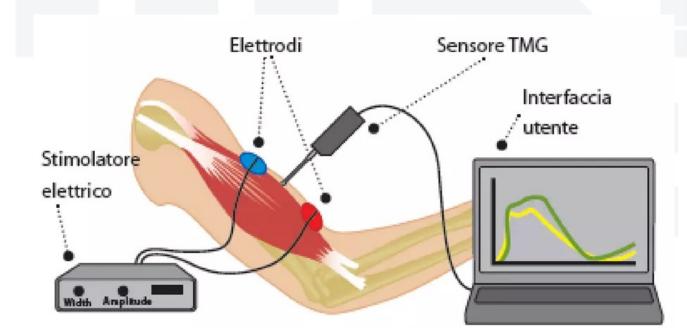


#### **D-WALL**



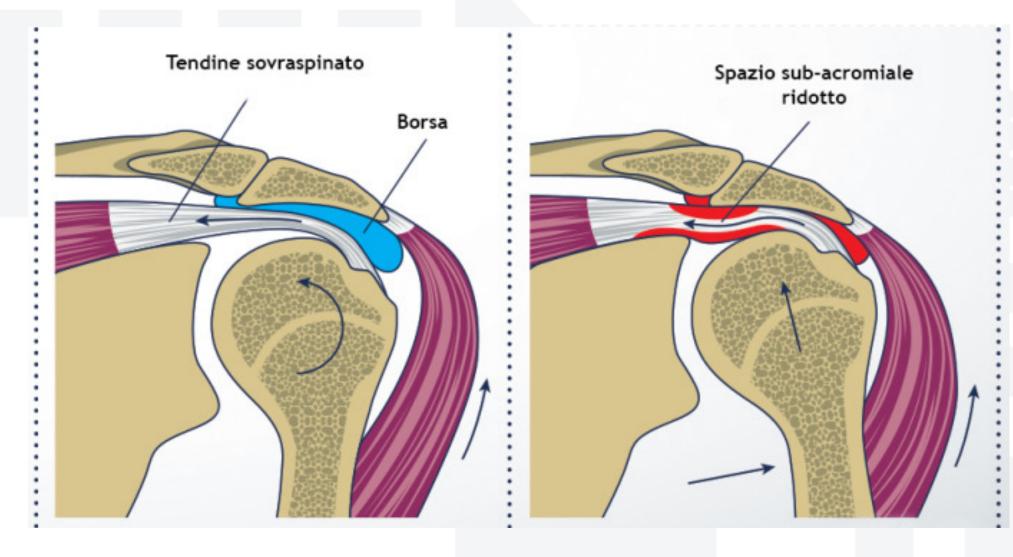


#### **TENSIOMYOGRAPHY**



## Swimmer's shoulder





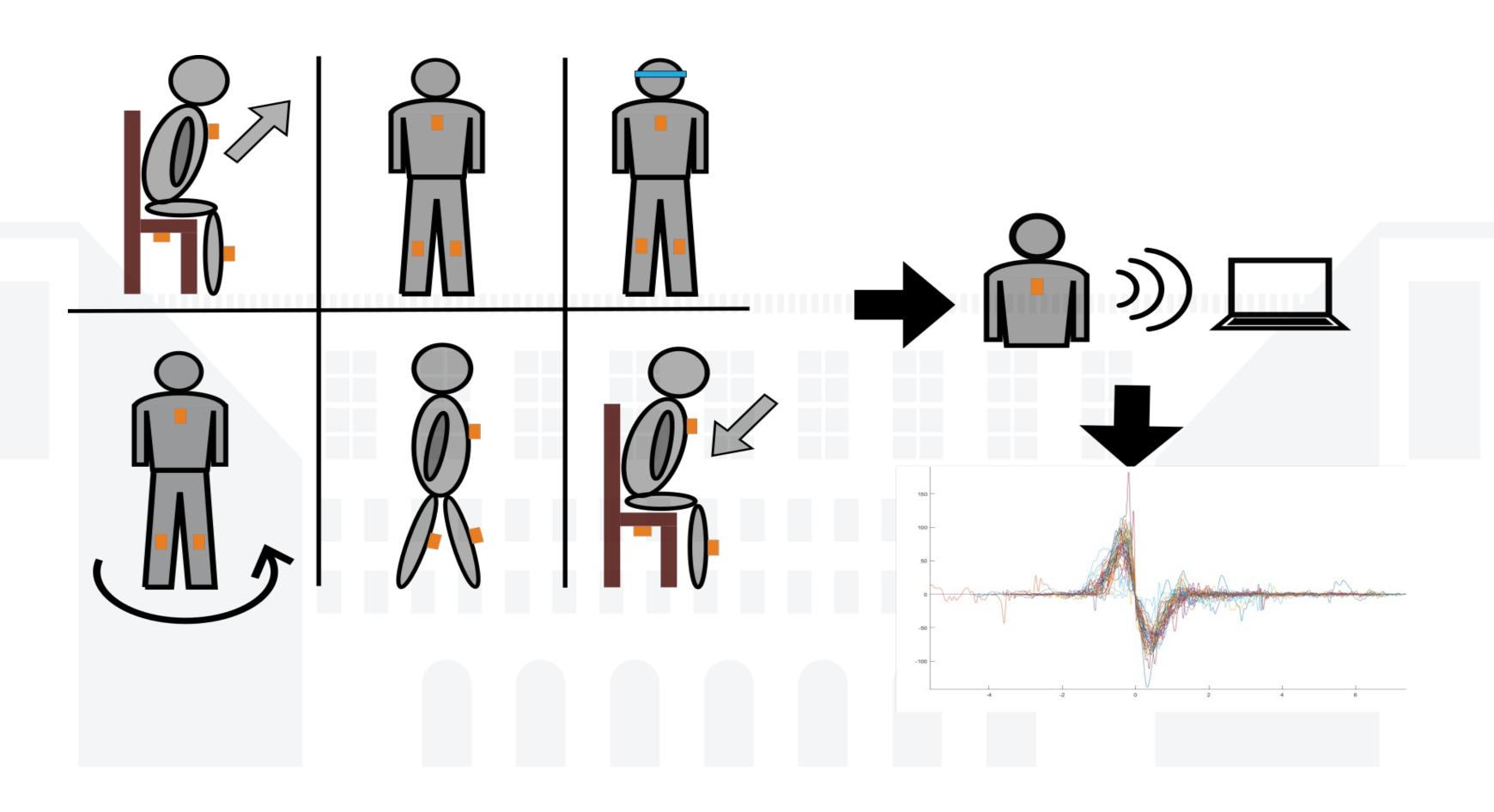
#### Climber's shoulder







## Identification of kinematic parameters that can be used for automatic application of the Tinetti test





## Are personality traits related to handwriting kinematic features?

Coscientiousness

Agreeableness Extroversion

Openess Neuroticism



### Thank you!

