

Classification for athletes with physical (motor) impairment competing in Clay Target Shooting: 3 medal events are proposed

StCS
Standing

If a consistent number of StCTSh with a **severe** impairment in the **upper** limb will be present

StCS1
Able to stand and walk

StCS1a
With an impairment in one or both **lower** limbs **regardless its severity**

Minimal impairment:
lower limb- trigger side
loss of at least **20** points in the **ankle** functions
AND
lower limb-barrel side
loss of at least **13** points

StCS1b
With a **mild** impairment in the **upper** limb which sustain the **barrel** of the gun

Minimal impairment:
upper limb-barrel side
loss of at least **10** points in the **finger** functions

SiCS
Sitting

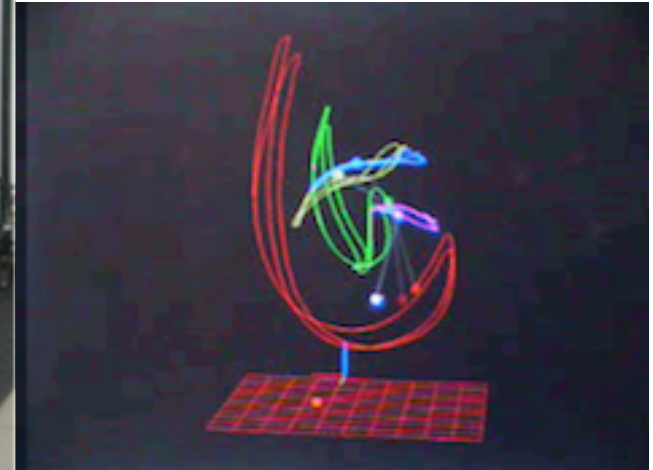
Wheelchair Users typically not able to walk

Minimal impairment:
loss of at least **30** points
Summing the impairment of both lower limbs
OR
total score of the **trunk** equal to **25**

StCS2
Able to stand and walk with a **severe** impairment in the **upper** limb which sustain the **barrel** of the gun

Minimal impairment:
upper limb-barrel side
loss of at least **35** points
(e.g., **no finger functions and no wrist functions**)
with a **residual part of the forearm**
lower than half of that of the trigger side.

Study of kinematics with passive markers on joints and **Upper body Nordik Ski-simulator ergometer**



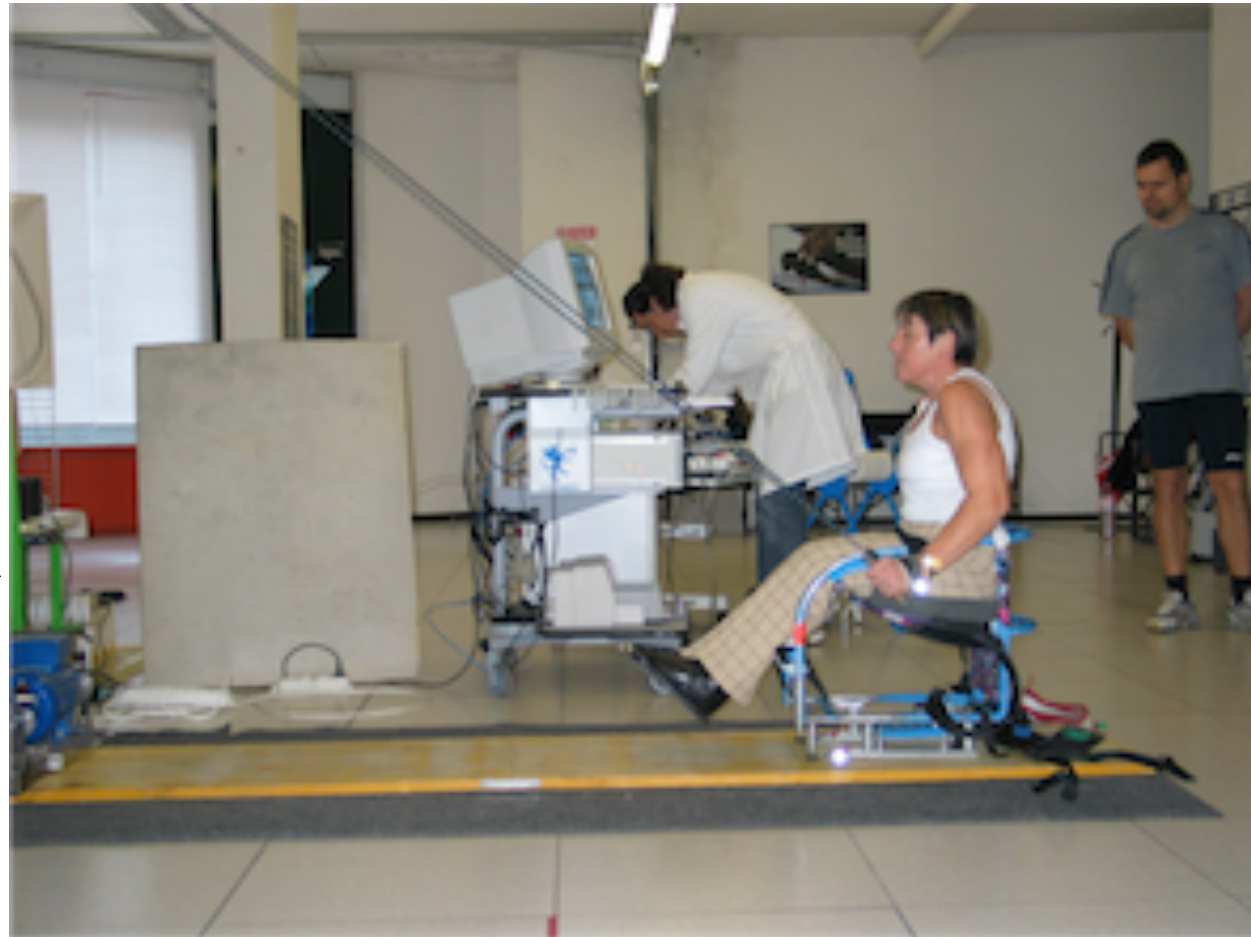
Upper body Nordik Ski-simulator ergometer

10 second long test:

At different velocity to measure strenght for maximal Power assessment

50 second long test:

- Maximal work capacity
- Average Power
- Decay of strenght and Power



Nordic Skiing in Motor impaired Athletes: Sit-Skiers



Hypothesis:
The typical strategy adopted by the Nordic Skiers is to keep high speed throughout the whole race. A successful Athletes is able to maintain this high speeds whole race because of the high level of Physical Fitness



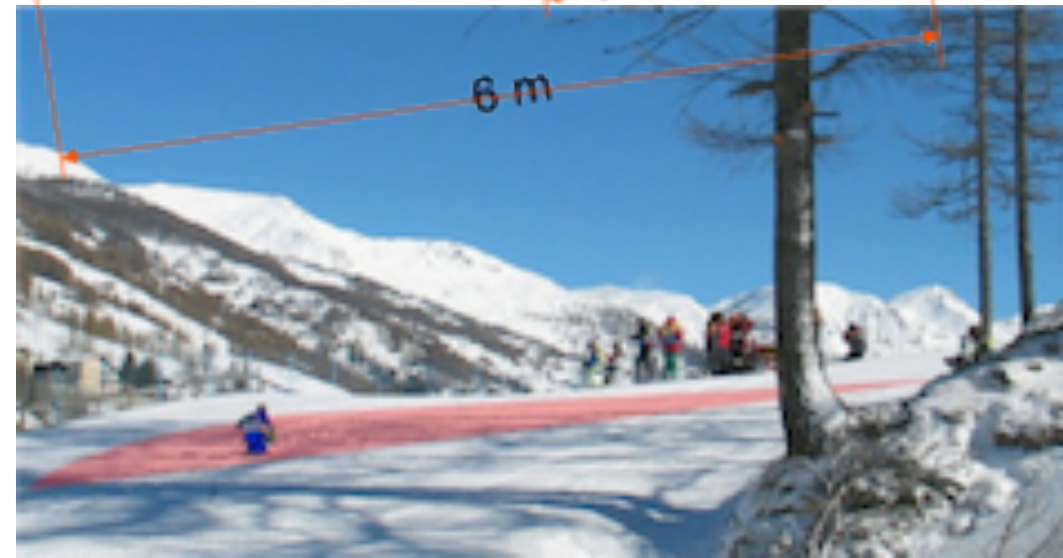
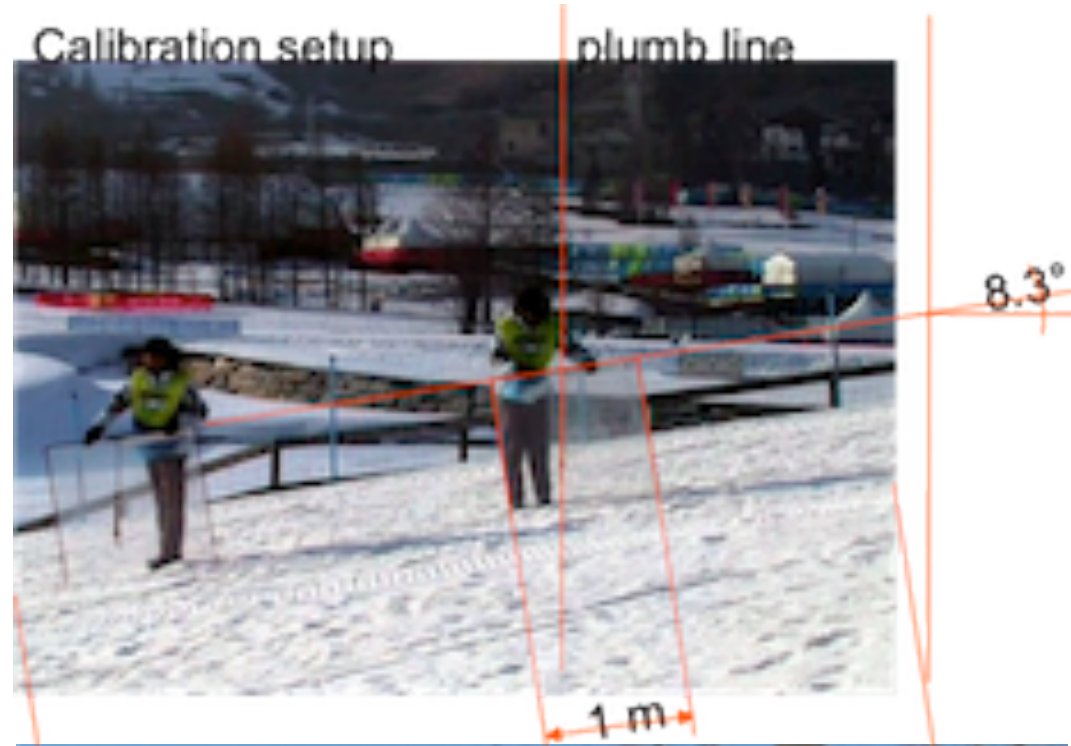
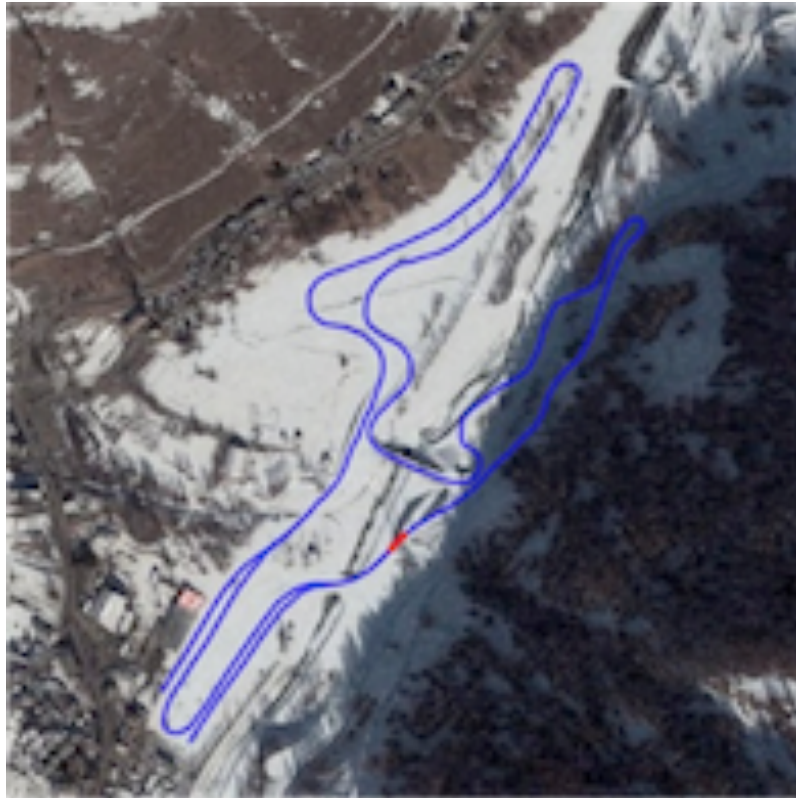
CeBiSM

CIP

Comitato Italiano Paralimpico

Pragelato – Torino 2006: Nordic Sit Skiing 15 k

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Video Recordings during the Up-Hill Tract of the 15k Course



Video Recordings during the Flat Tract of the 15k Course



Stick Diagram Video Analysis



Flat and Up-hill Tracts of the 15 km Pragelato Nordic Sit Skiing Race:

Movement Analysis allowed to calculate Cycle Length and duration and therefore cycle Speed. The different pattern of movements were also analyzed.



