

## **Abstract**

**Title (Thema works):** Validation of Measurement Wind Assistance in the 100 Metre Sprint

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**Aims:** To practically verify the relevance measurement by the wind - gauge in the 100 metre sprint according to the current rules of athletics and compare them with our experimental measurement.

**Methods:** We used an experimental measurement and methodological study for this diploma thesis. The essence of this work was measurement by five other wind - gauges bordering the 100metres track, whereas one of them was placed on the opposite side than the official one and the other ones. The essence of this methodological study was a confrontation of advantages and disadvantages of current measurement by one wind - gauge and our experimental one.

**Results:** Thanks to our experimental measurement and following methodological study we reached the result that to provide higher objectivity of measurement the wind assistance we need two wind - gauges standing against each other (at the inner and the outer border of the track). Further we made sure that measurement by larger number of wind - gauges is more objective than measurement with one wind - gauge. But in the most of cases the dates of the official wind - gauge are approximately the same as the average dates from other wind – gauges, so that we cannot for-square say that current measurement is insufficient.

**Key words:** athletics rules, wind – gauge, 100 metres, sprint