

## **Abstract**

### **Title:**

Comparison of performance tests results determined during kayak spiroergometry with achieved kayak paddling performance.

### **Objectives:**

The aim of the study was to determine relationships between functional parameters values found during kayak spiroergometry and sport performance at 1000 meters distance, and how are these relationships going to change based on training period.

### **Methods:**

To determine statistical dependence between sport performance at 1000 meters distance and chosen factors of sport performance, the correlation research was used – as a variable-dependent value the final result of sport performance at 1000 meters distance was used, as a variable-independent amounts functional parameters values found during kayak spiroergometry were used. To discover the statistical dependence methods of Pearson's correlation coefficient and regression analysis were used.

### **Results:**

General level of kayak-athletes from testing file indicated by functional parameters values and demonstrated by kayak spiroergometry performance depends on kayak-athlete's level of sport performance at 1000 meters distance in prepared-training period only, when importance for general condition is emphasized. We did not discover the same phenomenon based on pre-racing period testing results. Sport performance at 1000 meters distance is probably more predicted by different factors like paddling technique and „waterfeeling“, than by values of functional parameters and resulting values of spiroergometry.

### **Keywords:**

flatwater canoeing, spiroergometry, functional parameter, sport performance, statistical dependence, Pearson's correlation coefficient