4th World Conference on Physics Education

EMBRACING CHANGES TOGETHER

Contribution ID: **290** Type: **Poster**

Biomechanical Analysis in Rowing: Determining Pace with Autocorrelation

Wednesday 28 August 2024 12:50 (10 minutes)

STEM approach encourages interdisciplinary thinking while also emphasizing connections between the fields of science, technology, engineering, art, mathematics and sport. Biomechanical analysis in rowing examines athletes' movements, muscle activity, movement of joints and energy transfer in detail, providing key insights to optimize their performance. In this study, we performed a biomechanical analysis of rowing using Phyphox for data collection and Python on Google Colab for processing. By analyzing tempo and performance with various paddles, we determined how paddle type affects rowing boat speed. The findings offer insights into optimizing rowing performance through data-driven analysis.

Target education level

Secondary

Category

Formal Education

How would you like to present your contribution?

Live in Kraków (time slot to be allotted based on the programme)

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Session Classification: Poster session

Track Classification: Physics in STEM Education and Interdisciplinary Approaches