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Karim Khan
Editor-in-Chief
BJSM

Dear Editor-in-Chief,

Please find enclosed the reviewed manuscript of a paper entitled “**Predicting eggbeater kick performances from hip joint function testing in artistic swimming**” by Romain Martinez (corresponding author), Élodie Monga-Dubreuil, Najoua Assila, Gauthier Desmyttere and Mickaël Begon that we are submitting to be considered for publication in BJSM, as an **Original Article**.

In this manuscript, we modelled the performance of key skills in artistic swimming as a function of the hip maximum isometric strength with a machine learning algorithm. Our model may accurately predict future performances as the generalization error is similar to the resolution of the FINA guiding scale for height—which is used during official competitions. The purpose of such a model is twofold. First, it can be used to predict future performance and is therefore useful in a selection setting. Second, the interpretation of this model can help to build personalized and potentially efficient conditioning programs.

We believe this information to be relevant for the readers of the BJSM as the results: (1) provide some of the important predictors of key technical skills in artistic swimming, (2) provide isometric hip strength normative data in elite artistic swimmers and (3) show that predictive modelling can be used to select athletes and to design personalized conditioning goals.

This work is not under consideration at another journal and the material will not be submitted for publication elsewhere while it is under consideration for publication in BJSM. If accepted for publication in BJSM, the material will not be submitted elsewhere for publication, either in part or in whole, without the written consent of the General Editor. All authors made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Sincerely,

Romain Martinez