

Abstract Submitted
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Physics of rowing JEAN-PHILIPPE BOUCHER, ROMAIN LABBE, TIMOTHEE MOUTERDE, CHRISTOPHE CLANET, LadHyx - Ecole Polytechnique — Synchronization in rowing seems like a crucial condition for those who aim at winning top-level rowing races. However, in nature, one can observe animals with many legs, such as krill, swimming in a desynchronized manner which is nearly metachronal. From a physicist point of view, rowing by following a metachronal wave also seems like a great idea because, at high Reynolds number, the metachronal gait has one big advantage over the synchronized gait: it reduces the fluctuations of speed and thus the drag on the body. In this experimental study, we have built a scale model of a rowing boat to deal with the question of the effect of synchronization on the boat performance.

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