

Abstract Submitted
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On the efficiency of fish like swimming¹ MICHEL BERGMANN,
ANGELO IOLLO, INRIA Bordeaux Sud Ouest / Institut de Mathématiques de
Bordeaux, INRIA TEAM MC2 TEAM — The aim of this talk is to present a
parametric study of underwater locomotion via numerical simulations. The Navier-
Stokes equations are discretized onto a cartesian mesh and the interface between the
fluid and the fish is computed using an immersed boundary method. The lagrangian
motion of the swimmer is computed from the Newton's laws. We present results
showing how the swimming efficiency is influenced by the reynolds number and the
swimming law.

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