Abstract Submitted for the DFD15 Meeting of The American Physical Society

Synchronized Swimming of Two Fish¹ PETROS KOUMOUTSAKOS, GUIDO NOVATI, GABRIELE ABBATI, ETH Zurich, Computational Science, Switzerland, BABAK HEJAZIALHOSSEINI, Cascade Technologies, USA, WIM VAN REES, School of Engineering and Applied Sciences, Harvard University, USA — We present simulations of two, self-propelled, fish-like swimmers that perform synchronized moves in a two-dimensional, viscous fluid. The swimmers learn to coordinate by receiving a reward for their synchronized actions. We analyze the swimming patterns emerging for different rewards in terms of their hydrodynamic efficiency and artistic impression.

¹European Research Council (ERC) Advanced Investigator Award (No. 2-73985-14).

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Date submitted: 31 Jul 2015

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