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The swimming mechanics of Artemia Salina A. RUIZ-ANGULO, A.K. RAMOS-MUSALEM, R. ZENIT, Universidad Nacional Autonoma de Mexico — An experimental study to analyze the swimming strategy of a small crustacean (Artemia Salina) was conducted. This animal has a series of eleven pairs of paddle-like appendices in its thorax. These legs move in metachronal-wave fashion to achieve locomotion. To quantify the swimming performance, both high speed video recordings of the legs motion and time-resolved PIV measurements of the induced propulsive jet were conducted. Experiments were conducted for both tethered and freely swimming specimens. We found that despite their small size, the propulsion is achieved by an inertial mechanism. An analysis of the efficiency of the leg wave-like motion is presented and discussed. A brief discussion on the mixing capability of the induced flow is also presented.

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