## Abstract Submitted for the 4CF15 Meeting of The American Physical Society

Learning from the Dolphins: How Anterior Motion Affects the Dolphin Kick THOMAS CHOI, Phillips Academy — In this study, an observational analysis of the underwater human dolphin kick was conducted in order to investigate the hypothesis that large anterior movements increase the velocity of the kick. Two female and four male adolescents participated in the study. The subjects heights were recorded, along with data about their swimming speed and kick velocities and amplitudes at the toes, chest, and arms. From these data, kick frequency, normalized kick amplitude, and Strouhal numbers at the toes, chest, and arms were calculated. This analysis confirmed the initial hypothesis, but further research with additional study subjects is needed to verify these results.

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