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**Flow around a Jellyfish** SEIJI ICHIKAWA, OSAMU MOCHIZUKI,  
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We think to apply the swimming motion of a jellyfish to a micro robot made from soft material. The purpose of this study is to understand the way to propel the jellyfish's. We observed the swimming motion of the jellyfish by using a motion-capture camera, and measured the vector field of flow around the jellyfish by using a PIV system. The jellyfish is principally propelled by a vortex ring ejected at contracting phase of the jellyfish motion. Whereas, we do not have explanation for keeping constant speed and acceleration in the expanding phase of the jellyfish motion. We found that a vortex ring with the opposite vorticity to shed vortex ring was inside the jellyfish body in the expanding phase of the jellyfish motion. We discussed a cause of an increase in thrust force and keeping constant speed in the expanding phase of the jellyfish motion by considering the change in momentum.

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