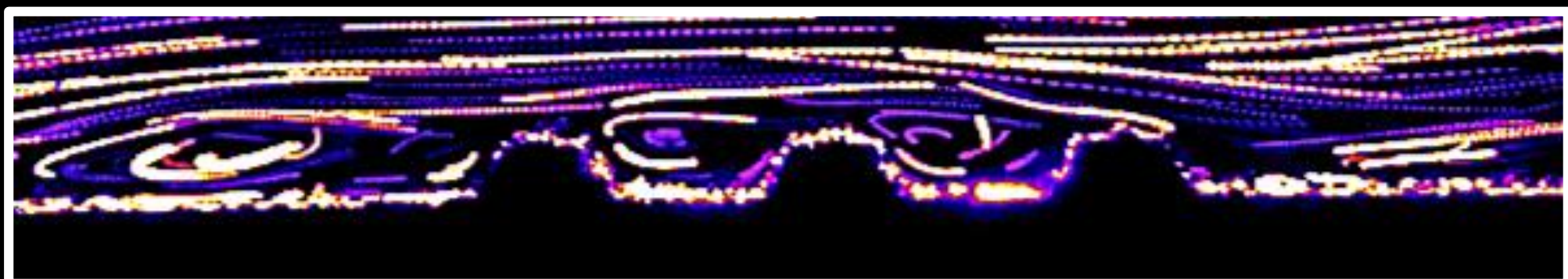


ROUGH NIGHT:

MULTISCALE ROUGHNESS INFLUENCES CORAL LARVAL SETTLEMENT



ON THE NIGHT OF THEIR SPAWNING, CORAL LARVAE BEGIN THE DIFFICULT JOURNEY THROUGH OCEAN CURRENTS, OSCILLATORY WAVES, AND TOPOGRAPHY-INDUCED VORTICITY TO FIND THEIR PERMANENT HOME. EXPERIMENTS IN AN OSCILLATORY FLUME TANK AND IN THE FIELD ON CARIBBEAN REEFS REVEAL THAT A COMBINATION OF PASSIVE FLOW STRUCTURES CREATED BY MICROSCALE ROUGHNESS AND ACTIVE SWIMMING ALLOW LARVAE TO SETTLE IN CURRENTS MANY TIMES FASTER THAN THEIR SWIMMING SPEEDS.



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