

Abstract Submitted
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A theory for stationary polygonal hydraulic jumps ASLAN KASIMOV, KAUST — When a vertical jet of viscous fluid strikes a horizontal plate, a circular hydraulic jump occurs at some distance from the jet impact point. Under certain conditions, the circular symmetry of the jump breaks and gives rise to stationary or rotating polygonal patterns. We describe experimental observations of the symmetry breaking and propose a model for the structure of the polygonal jumps.

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