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Daniel Coutand and **Steve Shkoller*** (shkoller@math.ucdavis.edu), Department of Mathematics, University of California, Davis, CA 95616. The splash singularity for the 3-D free-surface incompressible Euler equations.

We prove that the 3-D free-surface incompressible Euler equations with regular initial geometries and velocity fields have solutions which can form a finite-time "splash" singularity, wherein the evolving 2-D hypersurface intersects itself at a point. (Received December 13, 2011)