A potential mechanism for a singular solution of the Euler Equations MICHAEL BRENNER, Harvard University, SAHAND HORMOZ, Kavli Institute of Theoretical Physics, UCSB, ALAIN PUMIR, ENS Lyon — We describe a potential mechanism for a singular solution of the Euler equation. The mechanism involves the interaction of vortex filaments, but occurs sufficiently quickly and at small enough scales that it could have plausibly evaded experimental and computational detection. Scaling estimates for the characteristics of this solution will be presented, as well as numerical simulations of the initial stages.

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