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Rupture of an Amphiphile layer on air-water interface[1] MAHESH BANDI, University of Pittsburgh, JOHN CRESSMAN, Krasnow Institute, George Mason University, WALTER GOLDBURG, University of Pittsburgh — An amphiphile layer is decorated with tracer particles (mean diameter 50μm, specific gravity 0.25) on the surface of a tank of water. A jet of water is forced up from the underlying bulk. The jet forces a hole in the amphiphile layer. Its shape forms the subject of this study. The interface between the particle covered and particle free regions is highly ramified presenting a jagged structure that fluctuates in space and time. An attempt is to interpret this observation as the fracture of a quasi two dimensional surface.

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