

Abstract Submitted  
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**Extensional rheology of a two dimensional foam** NICHOLAS HAGANS, KLEBERT FEITOSA, James Madison University Department of Physics and Astronomy — We report on changes in the packing structure and flow properties of a two dimensional bubble raft of slightly polydisperse bubbles. High resolution image video is used to track the collective motion of the bubbles as the foam is subjected to an oscillatory extensional driving. The foam displays both elastic and plastic behavior under varying stress, with sudden collective rearrangements occurring along slip lines separating semi-crystalline domains. Measurements of local bubble rearrangements show that the events are temporally correlated, but not spatially correlated.

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