

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Towards an effective surface tension at a foam/water interface<sup>1</sup>**

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GRASP - University of Liege — Foams are defined as assemblies of gas bubbles immersed into a continuous liquid phase. Depending on the ration between the total volume occupied by the foam and the amount of liquid inside the foam, different rheological behaviors are observed. Beside the numerous studies on the foam's bulk behavior, poor is known concerning the interface between a foam and the liquid bath it has been generated from. This interface is however separating two identical liquids where, one of these, also contained a dispersed phase. Our studies aim in describing this interface in terms of an effective surface tension, while considering the foam as a continuous medium. Monodisperse foams are produced in Hele-Shaw cells and the features of the boundary between the foam and the baliquid pool is studied by means of hydrodynamical instabilities. Namely, Faraday waves, Rayleigh-Taylor instability and Saffmann-Taylor fingering are considered. Among these instabilities, the shearing of the interface is studied within a rotating drum experiment, similarly to the granular case.

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Date submitted: 04 Jan 2012

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