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Laboratoire PMMH  
10 rue Vauquelin, 75231 Paris Cedex 05



## Séminaire PMMH

*Bureau d'Études, Bâtiment L, 2<sup>ème</sup> étage*

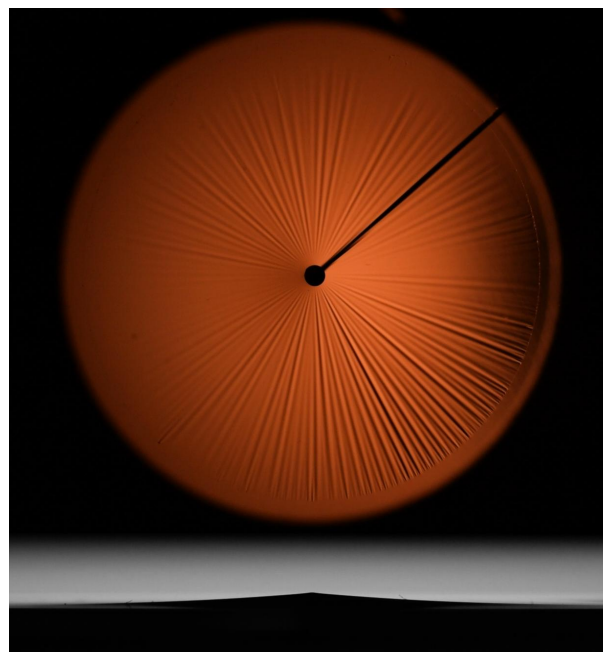
*Vendredi 8 avril 2016, 11h00-12h00*

### Joseph Paulsen

Syracuse University

#### **The wavelength of wrinkles in elastic sheets on curved topographies**

A thin elastic sheet will buckle when it is compressed, leading to the familiar wrinkle patterns on our foreheads, on plastic-wrapped objects, and on crinkly leaves. Wrinkling has recently been used as a noninvasive probe of thin film properties and mechanical environment. However, the current understanding of wrinkle wavelength is limited to parallel undulations on flat topographies. We propose a local law for wavelength that extends to spatially-varying wrinkle patterns in curved settings. We find excellent agreement with our experiments on thin polymer films floating on curved liquid surfaces.



Prochain séminaire : vendredi 15 avril, Pawel Pieranski (LPS, Université Paris-Sud)  
Programme des séminaires : [www.pmmh.espci.fr](http://www.pmmh.espci.fr), onglet *Séminaires PMMH*  
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