

Waitukaitus et al. *PRL* (2018)

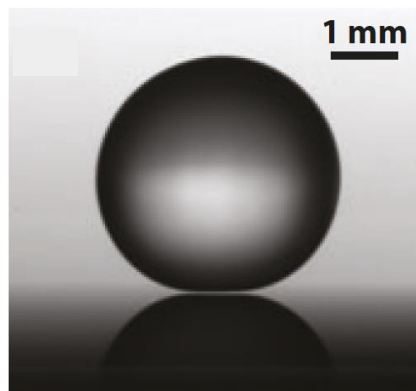
Wells et al. *Nat. Comm* (2015)

Linke et al. *PRL* (2006)

Burton et al. *PRL* (2012)

The Elastic Leidenfrost Effect

Liquid Leidenfrost



No Elasticity

Waitukaitus et al. *PRL* (2018)

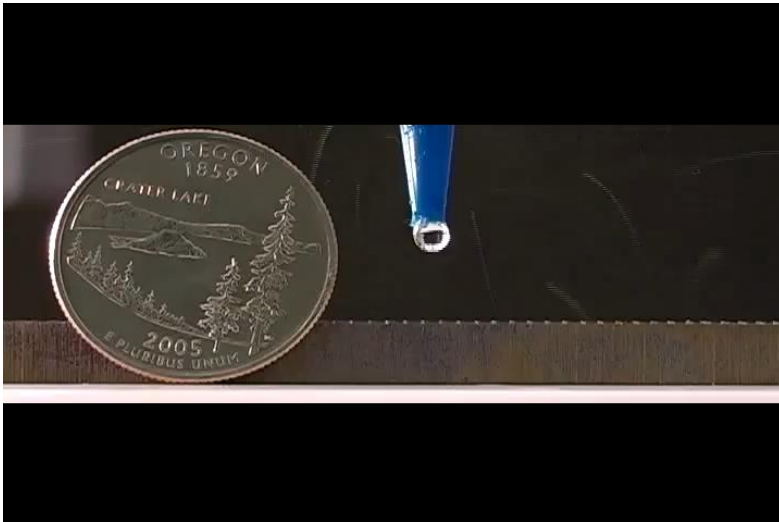
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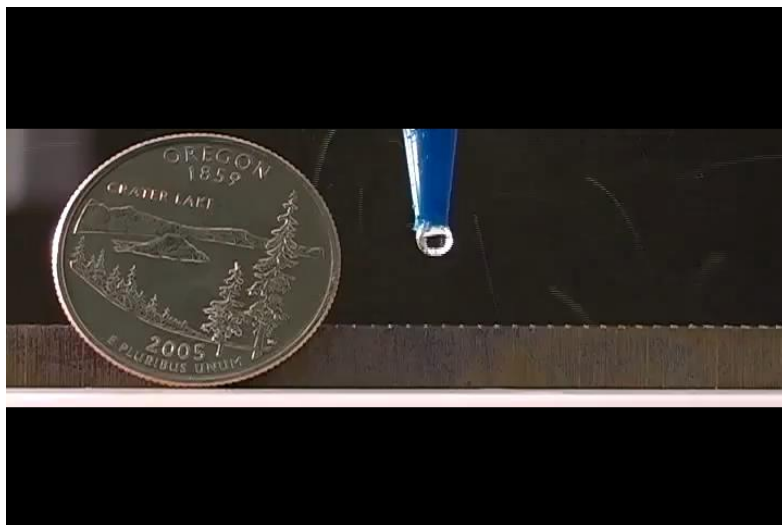
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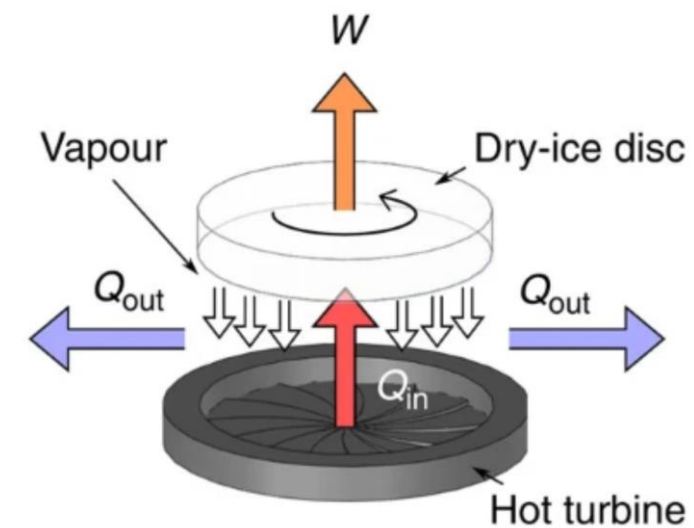
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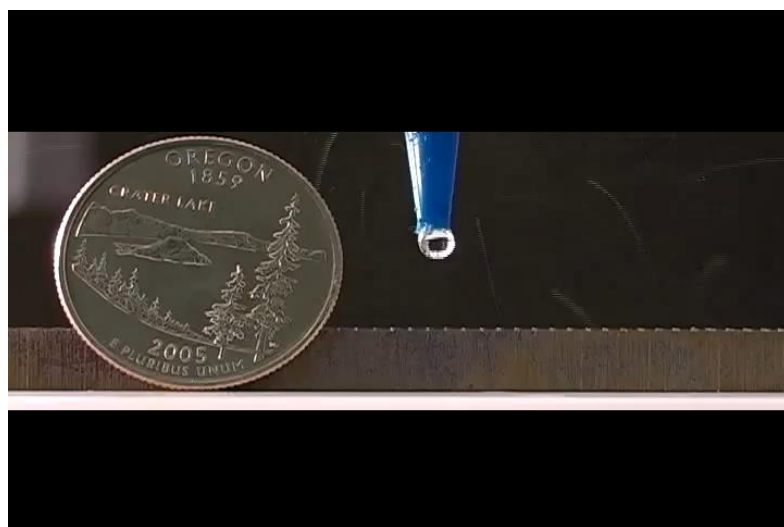
Solid Leidenfrost



Infinite Elasticity

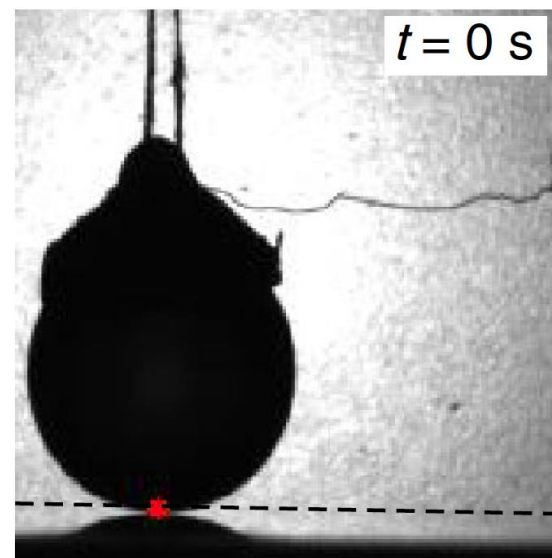
The Elastic Leidenfrost Effect

Liquid Leidenfrost



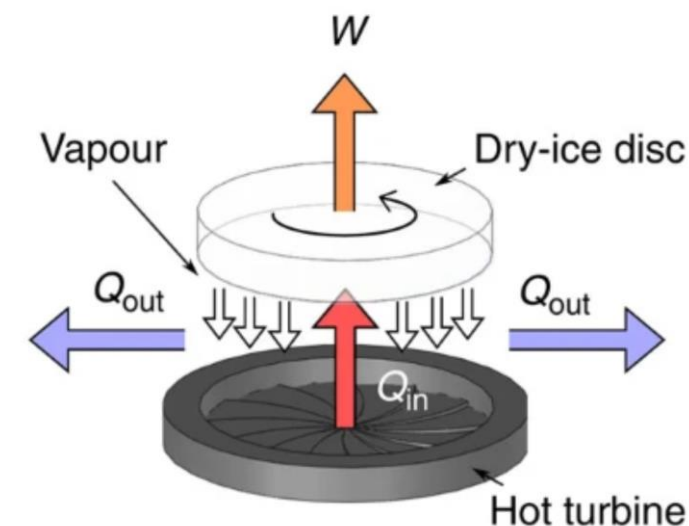
No Elasticity

Elastic Leidenfrost



Soft Elasticity

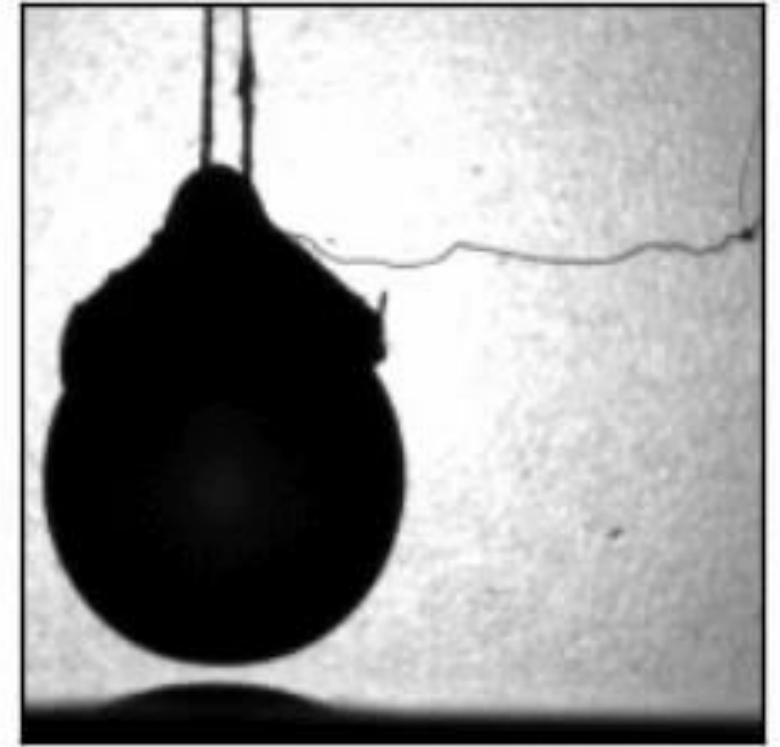
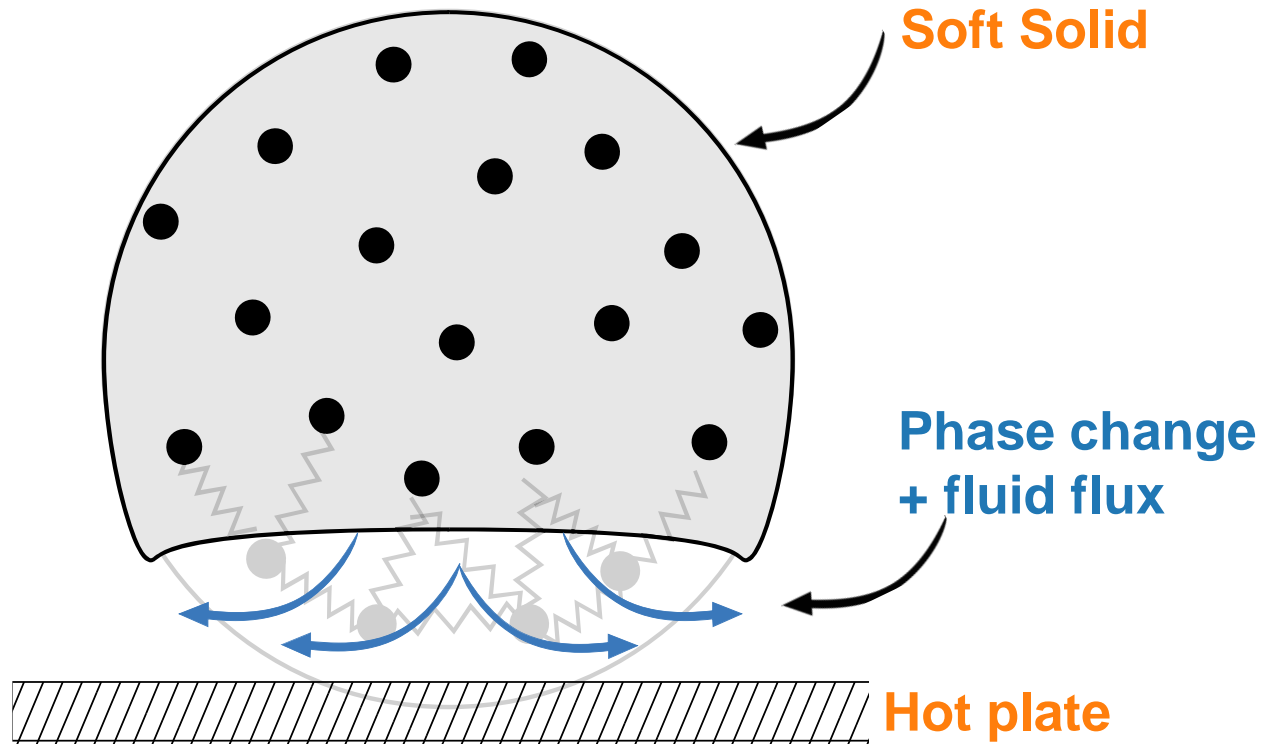
Solid Leidenfrost



Infinite Elasticity

A new class of Leidenfrost physics?

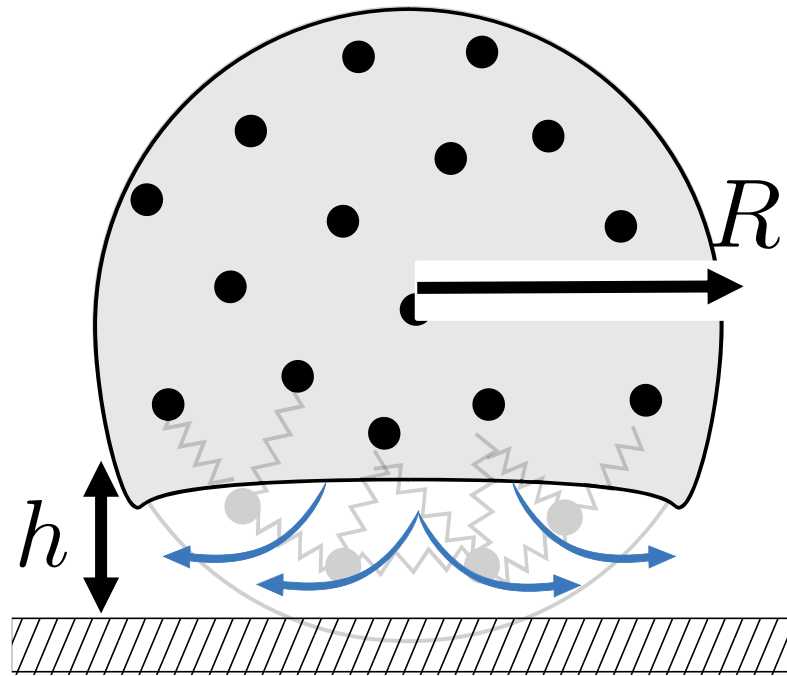
The Elastic Leidenfrost Effect



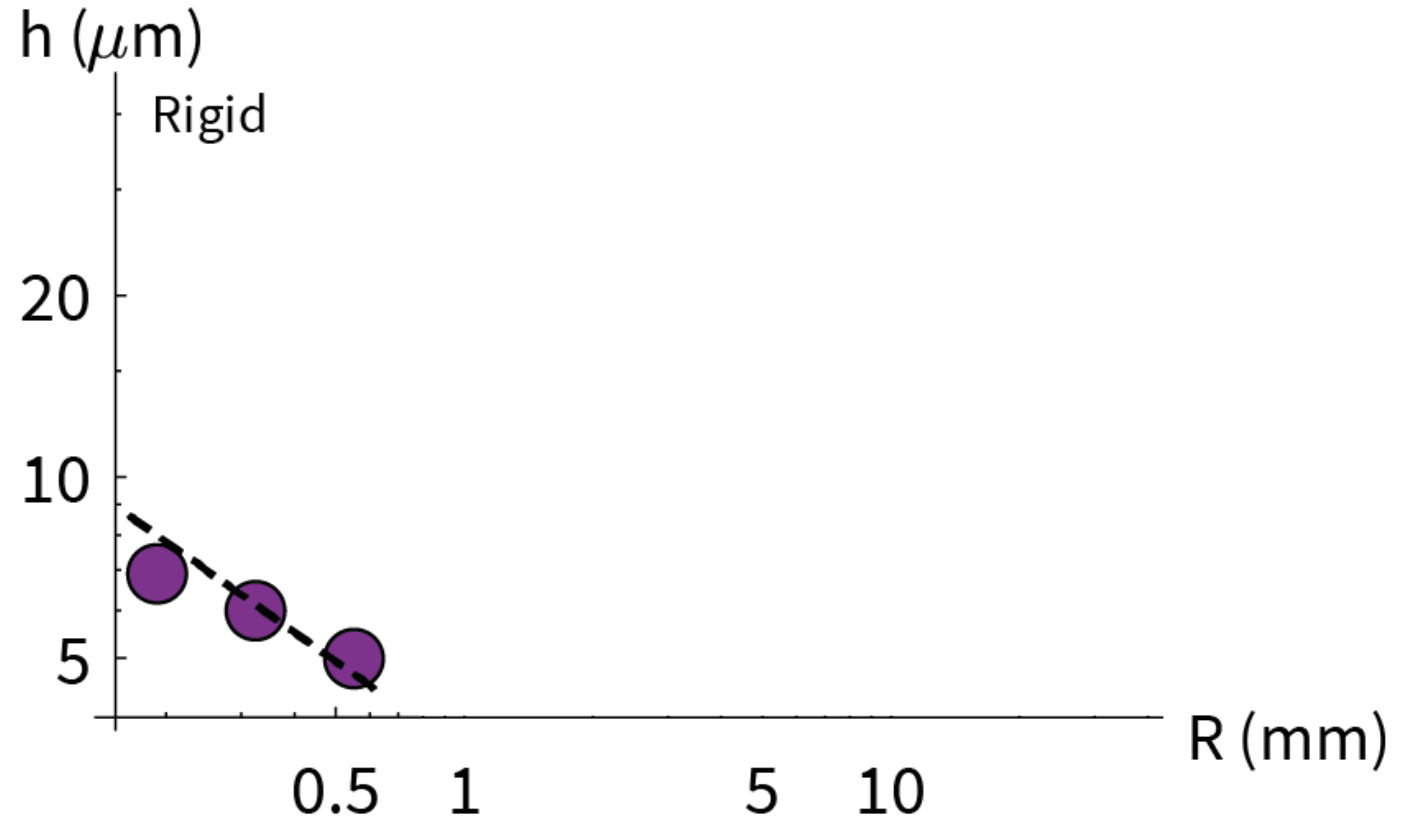
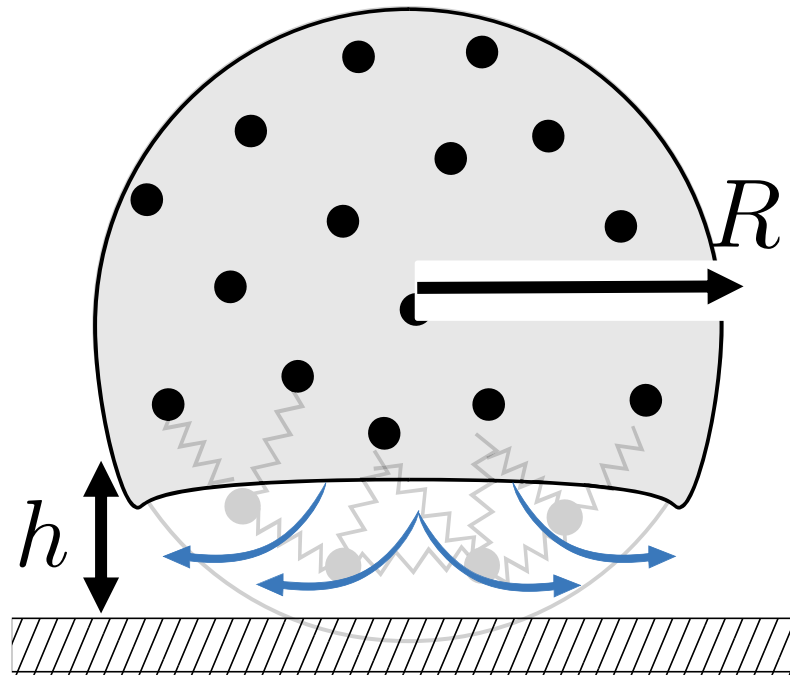
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**What is the basic physics ?
Gap Height?**

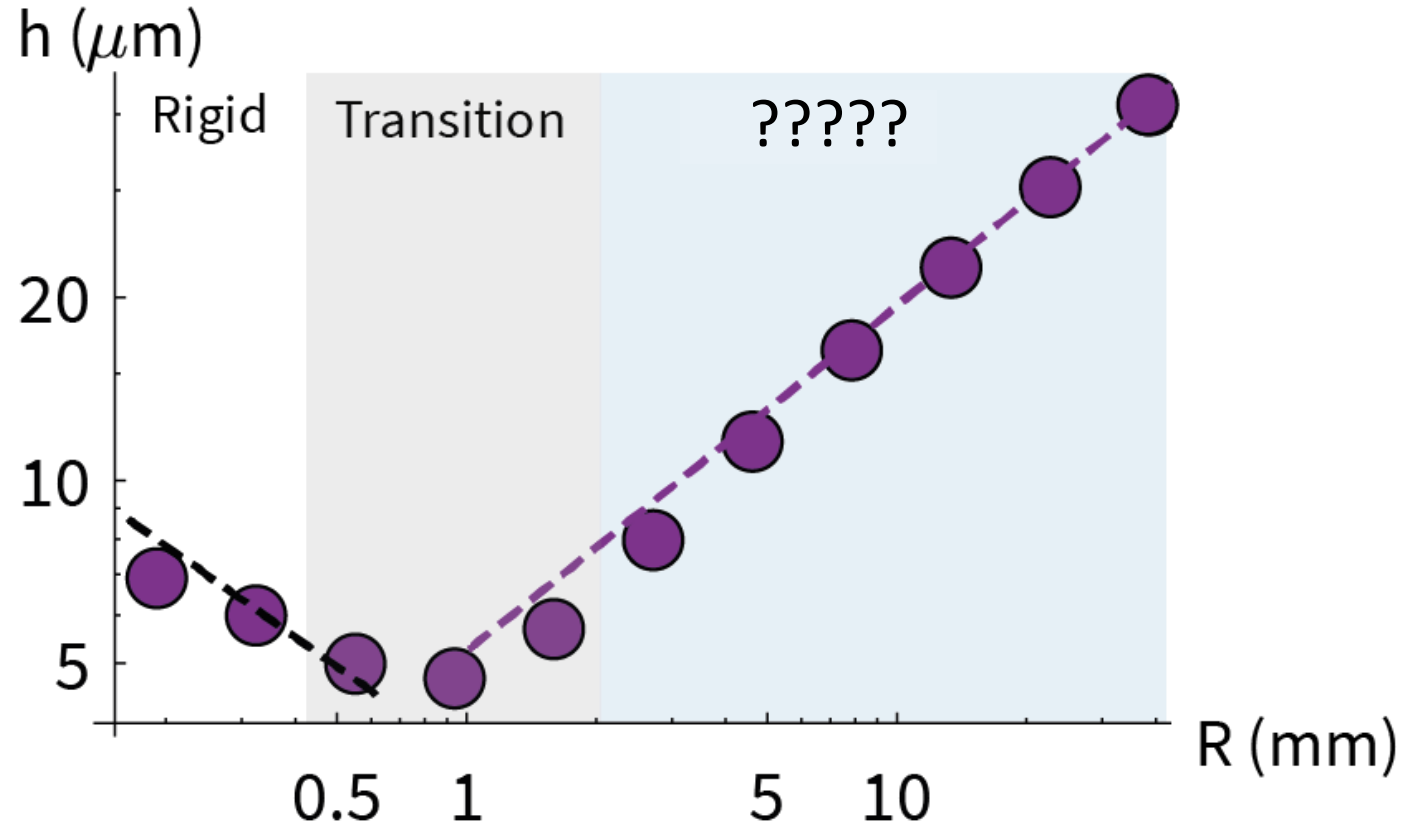
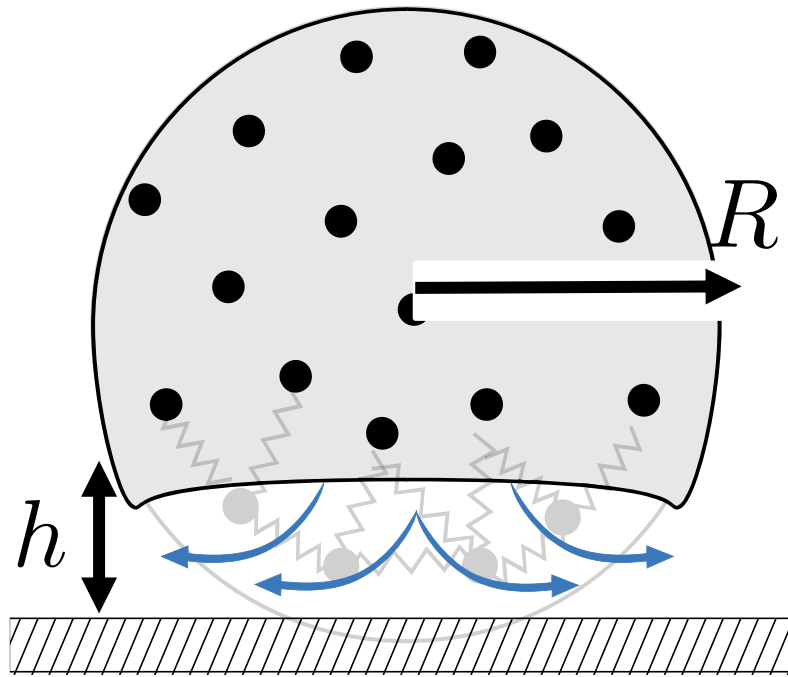
The Elastic Leidenfrost Effect



The Elastic Leidenfrost Effect

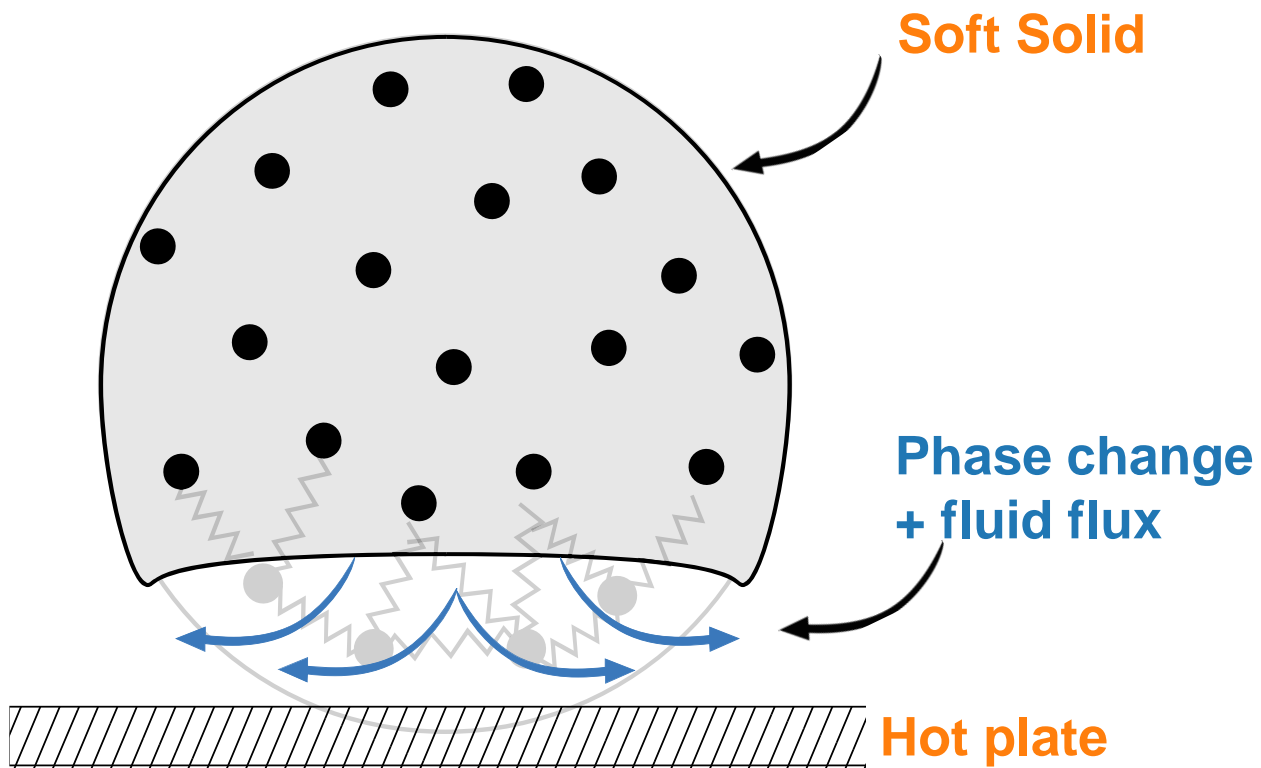


The Elastic Leidenfrost Effect

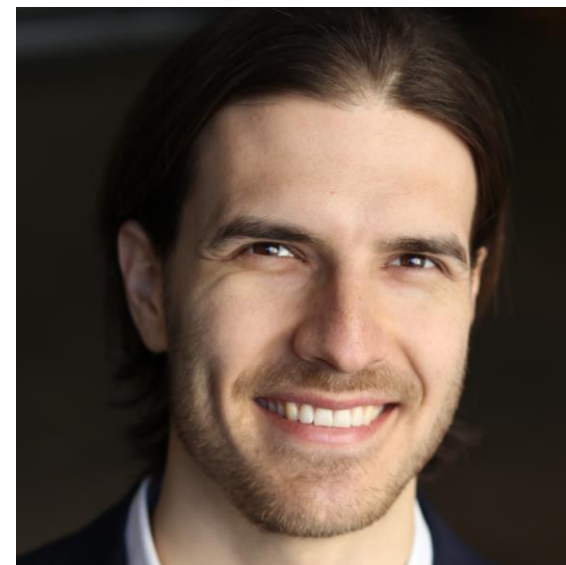


The harder you push, the larger the gap!

“Thermodynamic Lubrication in The Elastic Leidenfrost Effect”



Jack Binysh



Anton Souslov