

## Spreading dynamics and contact angle of completely wetting volatile drops

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### *Abstract*

The spreading of evaporating drops without a pinned contact line is studied experimentally and theoretically, measuring the radius of completely wetting alkane drops of different volatility on glass. Initially the drop spreads (increases), then owing to evaporation reverses direction and recedes with an almost constant non-zero contact angle  $\theta$ ; eventually the drop vanishes at a finite-time singularity. Our theory, based on a first-principles hydrodynamic description, well reproduces the dynamics of and the value of  $\theta$  during retraction.

### REFERENCES:

1. Spreading dynamics and contact angle of completely wetting volatile drops, Etienne Jambon-Puillet, Odile Carrier, Noushine Shahidzadeh, David Brutin, Jens Eggers, Daniel Bonn, *Journal of Fluid Mechanics* / Volume 844 / 10 June 2018  
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