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Liquid repellency by a moving plate AMBRE BOUILLANT, Ecole polytechnique (France), ANAIS GAUTHIER, CHRISTOPHE CLANET, DAVID QUERE, LadHyX, Ecole Polytechnique - PMMH, ESPCI — Moving solids can repel impacting drops, owing to their motion. Provided the solid velocity is larger than a threshold value, air entrained at the vicinity of the moving plate prevents the drop from wetting, and makes it bounce. In addition, the rebound is oblique, which enhances the evacuation of liquid. We discuss experiments and models on this theme, and extend them to case of small droplets (such as formed in a spray) found to be even more efficiently repelled by the moving plate.

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None

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