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Unusual dynamical properties of water repellent materials

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The reason why water repellent materials have been attracting such an attention for about ten years is mainly related to the remarkable dynamical properties they generate. Paradoxically, apart from the question of slip on such surfaces, only a few quantitative studies were devoted to these properties. In our talk, we plan to describe different ways of reaching superhydrophobicity, by texturing the underlying solid or the deposited liquid, or by heating the substrate. Then we list and describe the different specific dynamical behaviours which are observed, such as ultra-low hysteresis, (fast) running, bouncing or self-motion

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