

## **On the direction of jets during the the collapse of a bubble in contact with a rigid wall**

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In this work we will show that the dynamics of a bubble in contact with a wall is markedly different depending on the effective contact angle at the instant of maximum expansion. For contact angles smaller than 90 degrees, a classical jet develops towards the wall that generates large pressures upon its impact on the wall. For contact angles larger than 90 degrees, a re-entrant jet is observed that leads to an unconventional jet directed outwards the wall. This change of behavior can be explained using the solution of the potential flow around the bubble at small times. This solution is indeed singular at the contact line for contact angles larger than 90 degrees only. Direct Numerical Simulations will be used to unveil the importance of the the bubble shape at the instant of maximum radius on the effects induced by the bubble collapse in its surroundings and the peak pressures and temperatures reached.

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