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Latest News About Bubbles

When I was a child, I loved blowing soap bubbles —with those little bottles I won at the school fair. When you look closely, the bubbles have a thousand colours, and when the bubble is big enough, you can see that the soap is thicker at the bottom: it falls to the bottom.

I still like bubbles. Now the ones I use are a bit more sophisticated. In the laboratory we make an immaterial bubble with magnetic fields and radio frequency waves, on the surface of which we trap the atoms of a gas. The gas is so cold that its quantum properties are exacerbated: it is said to be superfluid. At rest, the fluid also lies at the bottom of the bubble, motionless. But if we slightly deform the surface of the bubble to make it spin like a top, the fluid spins, faster and faster, and the centrifugal force pushes it outwards, until it reaches the equator!

I don't know how to do that with soap…

Hélène Perrin