

## **Well-posedness and stability for the two-phase periodic quasistationary Stokes flow**

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We present the two-phase, horizontally periodic, quasistationary Stokes flow in 2D, where the interface separating the two fluids is driven by gravity and surface tension effects. We assume that the interface is given by the graph of a periodic function and reformulate the moving boundary problem as a fully nonlinear and nonlocal parabolic evolution equation for this function. We then show local well-posedness in subcritical Sobolev spaces and discuss the stability properties of stationary solutions.