

## **The moving contact line singularity - an experimentalists view**

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The shear stress at moving contact line is known to be singular due to the incompatibility between the no-slip boundary condition at the fluid-solid interface and the motion of the gas-liquid interface over the solid substrate. The singularity is relieved by the presence of a slip velocity at the liquid-solid interface, and although there are theoretical and numerical estimates of this phenomenon, this flow has not previously been measured with any accuracy. I will present results from a series of experiments with increasing spatial and temporal resolution that attempt to resolve the flow near contact line moving with speeds ranging from 0.1 to 3 mm/s. We have used a variety of measurement techniques and different sized tracer particles, all of which suggest that the slip region is confined to within a few microns of the interface and that the slip velocities are surprisingly large, with slip lengths approaching one micron.