

Contact Line Movement: A Never Ending Challenge?

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Rigorous analytical treatment of models related to contact line dynamics have been a great and fascinating challenge for decades now. In this talk we consider one of the most fundamental 2D models in this context. Its well-posedness seems still to be open. We will not be able to present the "final" result, but some promising steps towards the well-posedness. In particular, we will present a maximal regularity result on the corresponding linearized Stokes system. A suitable handling of the corresponding Stokes equations seems to be the crux of the whole problem. We will also explain how our approach can help to get closer to the "final" result. This is a joint project with Christiane Bui and Matthias Köhne.