

MODELING OF MOVING CONTACT LINE IN TWOPHASE FLOWS

Hanna Holmgren

Phd at the Division of Scientific Computing
Uppsala University





Modeling of Two Phase Flow

- Fluids: Navier Stokes equations/Stokes equations
- Interface: Level Set Method
- Discretization: Finite Element Method

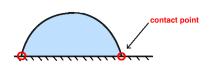


Modeling of Two Phase Flow

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Difficulty: Contact point/line treatment

 Necessary to introduce slip to avoid a singularity in the stresses. Not straight-forward.







Contact Point/Line Treatment

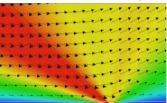
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 - analytical expression for fluid velocity field close to a moving contact line
 - Depends on u_{cp}

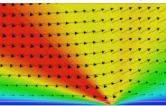


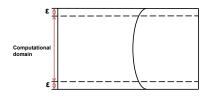


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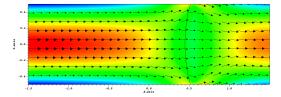




Impose hydrodynamic model as slip boundary condition



Preliminary Results





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