Dynamics of the Flows with Moving Contact Line

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Hydrodynamics combines mathematical modelling and everyday life in a beautiful way --- everyone has drunk a beverage using a straw and seen a water flowing from the hose to water the garden. Even though such flows have been researched for more than a hundred years only the simplest cases are properly described --- the ones with a really slow, laminar flow. In my project I present a new approach to the problem showing an innovative theoretical model describing also faster flows. I compare it to experimental results getting good accuracy and creating a basis for new hydrodynamic theories.

Awards Won: