



## MECHANICS SEMINAR

# Numerical aspects of non-Newtonian droplet dynamics using a free surface flow framework

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06 October 2021

Time: 16:00

Microsoft Teams - <https://tinyurl.com/semmec0121>

### **Abstract.**

In this talk we will present numerical progresses for solving non-Newtonian free surface flows involving droplet dynamics. We will revisit the construction of the front-tracking/marker-and-cell based schemes to deal with moving interface problems. The main purpose of our simulations is to investigate the combined effects of the viscoelasticity, plasticity, thixotropy, surface tension and gravity on the impact of droplets. In addition, we will present some recent results in the collision dynamics of viscoelastic droplets.