Lattice Boltzmann simulation of soft glass

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In this talk I will describe recent advances in the simulation of Soft Glass (emulsion) using Lattice Boltzmann Equation with frustrated interactions. In the first part of the talk, I provide a short review on the numerical approach and its validation. In particular I describe how the frustration interactions can be rephrased in terms of clear physical quantities. In the second part, I discuss the results obtained in the last few years. For suitable initial conditions and parameter choice, it is possible to simulate an emulsion like system with yield stress, non linear rheology and cooperative effects.