

## Short-range attractive colloids: one simple liquid with two glasses ?

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Short-ranged attractive colloidal systems have recently become the focus of many experimental [1] and theoretical [2] studies. The interest in these systems stems from their peculiar dynamics [3], for showing structural arrest phenomena both of gelation and vitrification type, and last but not least, for being amenable of analytic treatments. Previous studies have convincingly shown that unusual dynamical phenomena emerge from the competition between two characteristic localization length scales; the hard-core and the short-range attraction localization lengths.

In the talk I will review recent numerical and theoretical work from our group [4], in models for short-range attractive colloids, discussing in details:

- (i) the anomalous dynamical features
- (ii) the possibility of two distinct glasses
- (iii) the differences in the dynamics between the two glasses

### References

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