

Abstract Submitted  
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**Structure and dynamics of self-assembly** HENRIK VAN LENGERICH, RICHARD JAMES, University of Minnesota — We investigate structures that are composed of many identical building blocks. Of particular interest are equilibrium structures where every building block sees the same environment - we call these “objective structures”. For example, carbon nanotubes and virus capsids are both objective structures. The dynamics of assembly is investigated through experiments and simulations. The experiment consist of a macro-scale shaker containing identical neutrally buoyant magnetic particles. Simulations model the translation and rotation of particles using Langevin dynamics. This kind of modelling is applicable to both our experiment and to molecular assembly.

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