

Abstract Submitted
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Active crystallization of Artificial Microswimmers JEREMIE PALACCI, STEFANO SACANNA, JOYCE LAINE, CSMR, NYU, USA, ASHER PRESKA STEINBERG, Brandeis University, USA, DAVID PINE, PAUL CHAIKIN, CSMR, NYU, USA, CSMR, NYU, USA TEAM — A novel type of light activated microswimmers is used to drive the system far from equilibrium. For sufficient concentrations they spontaneously assemble in crystalline clusters of particles. These clusters are mobile, with complex dynamics –explosion, self healing...– and can reversibly melt down if the activity is shut down. The origin of the attraction between the active particles as well as the crystallization mechanism and the complex dynamics will be presented and rationalized quantitatively.

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