

**ESPCI-PSL** Gulliver, UMR 7083 10 rue Vauquelin 75005 Paris



## **Gulliver Seminar**

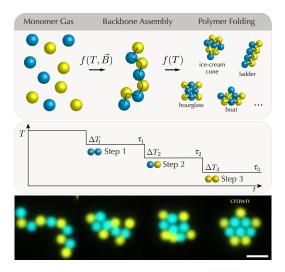
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## Folding Made Easy

The goal of self-assembly is to program particle interactions such that they aggregate into a unique architecture with a specific function. In biology, linear sequences of amino acids have evolved to spontaneously fold into well-defined protein geometries. In a system of much reduced complexity, we show an analogous design strategy that successfully folds colloidomers, i.e. polymers made of micron-sized droplets, into desired folds. These supra-colloidal building blocks pave the path towards programmable macroscopic architectures, such as aperiodic crystals or colloidal micelles.



Mixing two emulsions can lead to the spontaneous formation of linear droplet chains, which, upon careful cooling, exclusively fold into crowns, for example.

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