Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Condensed States of a Semiflexible Copolymer in a Poor Solvent: Figures of Eight and Discrete Toroids DAVID WILLIAMS, ERNESTO HERNANDEZ-ZAPATA, IRA COOKE, Australian National University — We examine the problem of a semiflexible (stiff) copolymer chain in a selective solvent. In the homopolymer case toroids often result. In the copolymer case the phase diagram is much richer. One can obtain striped toroids, figure eights, cages and many other stuctures. We will present simple analytical results for some of these along with computer simulations showing a variety of morphologies. One major result, is that for copolymers the structures must be discrete so the size of the toroids is effectively quantised.

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Date submitted: 15 Jan 2006 Electronic form version 1.4