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The Shape of Structured Polymer Vesicles¹ MARK BOWICK, Syracuse University, MIN-HUI LI, Institut Curie (Paris), HOMIN SHIN, UMass Amherst, XIANGJUN XING, Shanghai Jiao Tong University, ZHENWEI YAO, Syracuse University — Polymer vesicles are stable robust vesicles made from block copolymer amphiphiles. Recent progress in the chemical design of block copolymers has lead to the creation of a variety of polymer vesicles with varying internal structure, functionality and shape. By choosing suitable liquid-crystalline polymers for one of the copolymer components one can create vesicles with internal nematic or smectic order. This talk will address the possible shapes of these *structured* vesicles as well as their inherent topological defects.

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