

Abstract Submitted
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RNA gels with negative Poisson ratio AMIR AHSAN, JOSEPH RUDNICK, ROBIJN BRUINSMA, Department of Physics and Astronomy, UCLA — We present a simple model for the elastic properties of very large single-stranded RNA molecules linked by partial complementary pairing, such as a viral RNA genome in solution. It shown that the sign of Poisson's Ratio is determined by the convexity of the force-extension curve of single-stranded RNA. The implications of negative Poisson Ratio's for viral genome encapsidation will be discussed.

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