Supplementary Information for

Patterning order and disorder with an angle: Modeling single-layer dual-phase nematic elastomer ribbons

Vianney Gimenez-Pinto [1,2*||] *and Fangfu Ye* [1,3,4]

[1]*Beijing National Laboratory for Condensed Matter Physics & CAS Key Laboratory of Soft Matter Physics, Institute of Physics, Chinese Academy of Sciences, Beijing 100190, China*
[2]*Department of Chemical Engineering, Columbia University*
[3]*School of Physical Sciences, University of Chinese Academy of Sciences, Beijing 100049, China*
[4]*Songshan-Lake Materials Laboratory, Dongguan 523808, China*

**Current Addresses: Department of Physics and Astronomy, University of Pennsylvania and Department of Physics, Temple University*

||*Corresponding author: vgimenezpinto@temple.edu*

Supplementary Video 1*: Actuation of a hybrid flat-twist ribbon with stripe-width/thickness ratio=40.0. Stripe pattern has an angle ψ =90 degrees and the twist-nematic director configuration has an offset angle θ =45 degrees. During a transient time, sample show chiral saddles in active nematic region and saddles with opposite chirality in the inactive isotropic regions. This short-lived deformation (first second of video) is consequence of adjacent strains produced by the morphing of the nematic stripes. Isotropic regions are then allowed to relax and find equilibrium in a flat state.*