

TEMPLE UNIVERSITY

Department of Mathematics

**Applied Mathematics and
Scientific Computing Seminar**

Room 617 Wachman Hall

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Limiting theories for incompressible materials

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Rubber-like materials are often modeled as incompressible materials. In the theory of nonlinear elasticity this leads to a constraint on the determinant of the deformation gradient. Motivated by experiments on nematic elastomers we derive thin film theories for incompressible membranes and plates. This is a joint work with Sergio Conti.