How do molecules order in soft materials?

2D liquid crystals on curved and dynamic surfaces

Badel Mbanga, postdoc
analytical and numerical

Extreme mechanics: growing tissues, folding and packing paper

James Hanna, postdoc
Marcelo Dias, graduate student
collaborations with polymer science, UPenn
analytical and numerical

Shaping biological membranes with proteins
collaboration with UCLA
analytical theory, started by Kiyo Akabori

http://blogs.umass.edu/~csantang
Develop new methods to solve new problems

- Paper and pencil theory to elucidate organizing principles
- Geometry as a tool to understand *universal* features of soft materials
- Computation when analytic calculations and experiment are not sufficient

Collaborations with experimentalists, theorists and mathematicians at UMass and other institutions

Chris Santangelo
http://blogs.umass.edu/~csantang