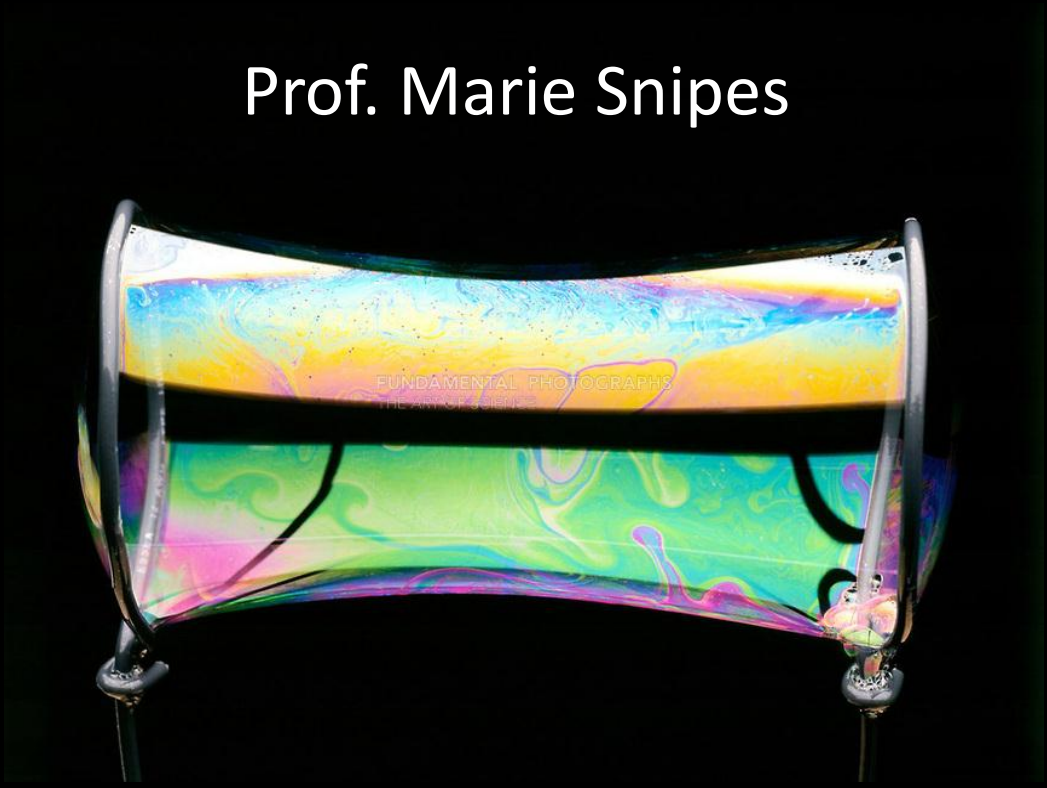
Minimal Surfaces:

From soap films to image processing

Prof. Marie Snipes



If a piece of wire is twisted into some shape and then dipped into soapy water, a soap film forms. This film is a surface of minimal area whose boundary is the bent wire. Using soap films as inspiration, we will discuss the question of how to define a surface. The discussion will lead to a description of flat chains, a class of geometric objects that can be thought of as generalized surfaces. Finally, we will discuss some surprising new applications of flat chains in the field of image processing. Opportunities to play with bubbles will be provided.

Monday, December 3

3-4 pm

RBH 311