

# Elastic Properties of 2D Origamis

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# Chapter 1

## Basis

The current way to determine the elastic properties of 2D origamis is by calculating the free energy using Umbrella Sampling, and this data is not experimentally useful at all.

What I should do is figure out a framework for calculating the elastic properties of 2d materials using fluctuations.

Hemani said that the most important quantities to determine are the axes dependent on the geometry of the sheet and the  $E_1$  and  $E_2$  values.