

**Marco Veneroni**

*On minimizers of Helfrich energy for two-phase biomembranes*

Since the pioneering paper of Helfrich in 1973, variational formulations involving curvature-dependent functionals have proven useful for shape analysis of biomembranes. We present an existence result for doubly-constrained global minimizers composed of two different phases. The functional is minimized over axisymmetric couples of surfaces and phases with fixed area and enclosing a fixed volume.

This is joint work with Rustum Choksi (McGill University, Montreal) and Marco Morandotti (Carnegie Mellon University, Pittsburgh).