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Mathematical modeling of dynamic behavior of fluid bilayer membranes under the effect of density asymmetry

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Highlights

- Deriving the governing equations of fluid bilayer membranes using a continuum model with an energy approach
- Discretizing the governing equation with FEM using B-spline basis function
- Solving the set of nonlinear ODE numerically
- Exploring the phase diagram to verify the governing equations and the numerical code
- Study the effect of density asymmetry in vesicles caused by change in density or equilibrium density of the outer monolayer

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