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Direct Numerical Simulation and Analytical Modeling of Electrically Induced Multiphase Flow

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## Highlights

- Direct Numerical Simulation has been used to study the falling drop deformation using an open-source volume-of-fluid solver, Gerris.
- The drop deformation has been solved analytically and the results are compared with DNS solutions.
- Electric field applied as an external force to control the deformation of the drop.

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