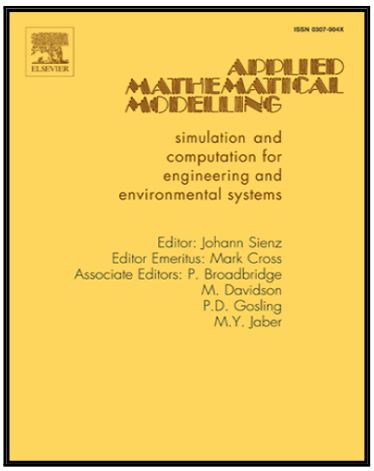

Magnetic Field Effects on Newtonian and Non-Newtonian Ferrofluid Flow Past a Circular Cylinder

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Highlights

- Magnetic effects on Newtonian/non-Newtonian ferrofluid flow past cylinder are studied.
- Magnetic effects decrease drag for both Newtonian and non-Newtonian fluid.
- Drag reduction is higher for shear thinning and lower for shear thickening fluid.
- Magnetic effects decrease vortex formation frequency for both fluid models.
- Drag coefficient increases when magnets are placed towards the cylinder front region.