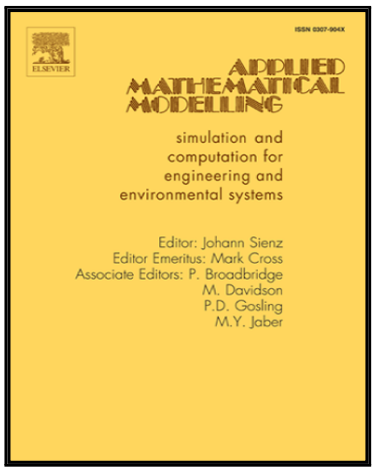

Thermoelectric problem for an axisymmetric ellipsoid particle in the liquid metal: analytical solution and numerical modeling

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Highlights

- Current density inside the ellipsoid particle does not depend on the particle size
- Current density inside the ellipsoid particle depends on ellipse's eccentricity
- Current density in the ellipsoid depends on its orientation in the thermal field
- Inside an ellipsoid the vectors of current and thermal gradient may be not parallel
- The ellipsoid particle is translated by the thermoelectric force