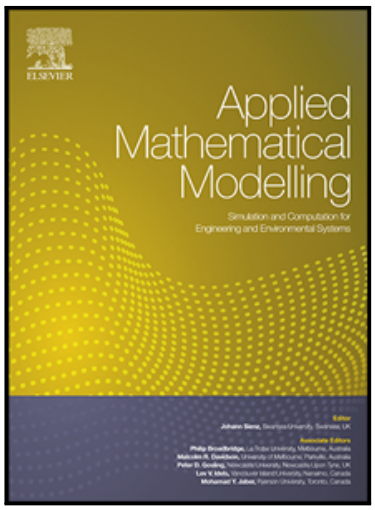

Mass imperfections on a toroidal micro-ring model including thermoelastic damping

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Highlights

- Thermoelastic dissipation is discussed for the toroidal-shaped micro-ring with mass distributions.
- 3-D heat conduction equation employed for more accurate estimation.
- Temperature profile is obtained in terms of Bessel functions using cylindrical coordinate system.
- The modified quality factor is estimated by using the eigenfrequency of imperfect ring.
- Deviations of temperature profile due to the imperfections are graphically observed as a function of radial component.