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Development of an RVE and its stiffness predictions based on mathematical homogenization theory for short fibre composites

K.P. Babu, P.M. Mohite, C.S. Upadhyay

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## Highlights

- Generation of RVEs for short fibre composites with periodic boundary conditions for material continuity.
- Four different cases of fibre arrangements and different fibre volume fractions studied.
- Mathematical theory of homogenization was used to predict the stiffness.
- Efficient in predicting the overall behaviour with repetitiveness.

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