

Stochastic computational methods - applications to textile FRP

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To develop new stochastic computational methods considering variability or uncertainty, two approaches are presented; Monte Carlo method and stochastic homogenization method. In the former method applied to RTM simulation, a sampling scheme highlighting on the tail distribution is presented. In the latter one, parameterization and multiscale modeling of FRP laminate fabricated by hand layup, which includes statistic data of nesting, are presented.