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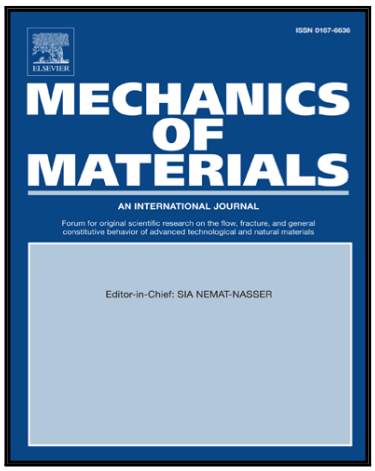

Finite element modeling effects of inter-yarn friction on the single-layer high-performance fabrics subject to ballistic impact

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Highlights

- Higher inter-yarn friction will make the energy absorption rate increase monotonously.
- Higher inter-yarn friction will make the response mode of fabric more globalized.
- Near zero friction, strain energy(SE) is the dominant mechanism of a fabric while at higher
- inter-yarn friction, kinetic energy(KE) becomes the dominant one
- An maximum inter-yarn friction exists for frictional dissipation energy(FDE) absorption

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