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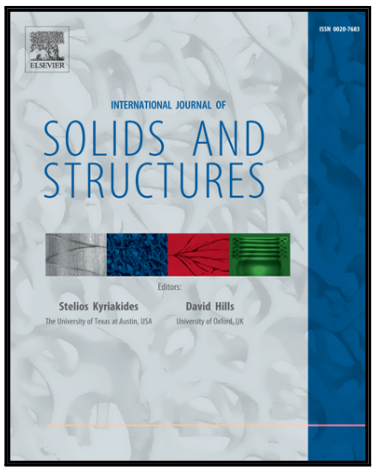

An Approach of Adaptive Effective Cycles to Couple Fretting Wear and Creep in Finite-Element Modeling

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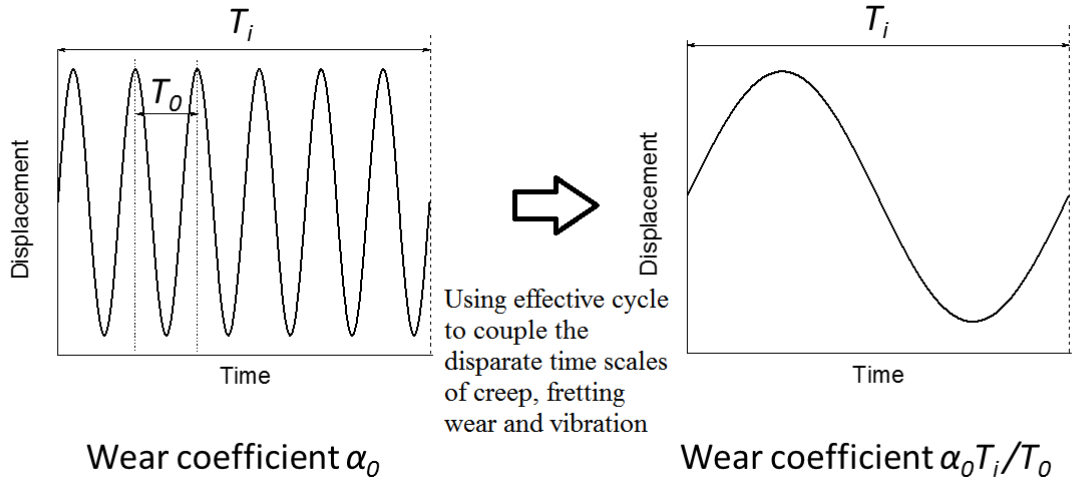
Graphical abstract

Fretting wear and creep can occur simultaneously when two surfaces in contact vibrate against each other. The period of vibration is usually much smaller than the time scales associated with significant stress redistribution caused by creep or wear. We present a method to couple the short time scale of vibration with the long time scale of creep and wear by an approach of adaptive effective cycles.



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