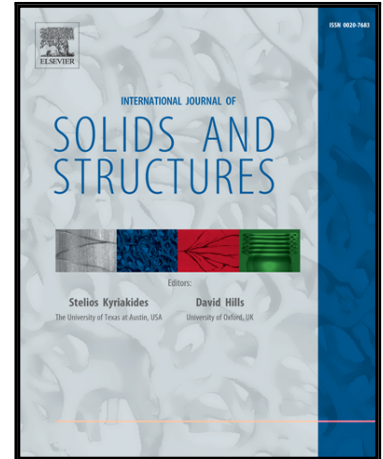


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Full contact analysis of wire rope strand subjected to varying loads based on semi-analytical method

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Highlights

- The behavior of wire strand under varying axial tension and torsion is analyzed.
- An interwire full contact model considering different contact statuses is built.
- The coupled contact status happens to the strands under some certain axial loads.
- The stiffness at a large lay angle increases obviously with increasing axial load.

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