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Evaluation of notch stress intensity factors by the asymptotic expansion technique coupled with the finite element method

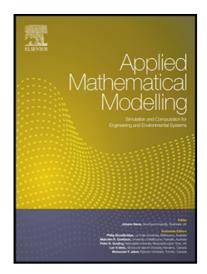
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Highlights

- The asymptotic expansion technique coupled with the finite element method is proposed to evaluate notch stress intensity factors
- The singular order, stress angular function and amplitude coefficient in stress asymptotic field of a V-notch can be all yielded.
- There no special element is needed while the high computational accuracy is obtained.
- The proposed method can be implanted into the commercial finite element software to analyze V-notches in engineering structures.



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