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An eigen-strain approach on the estimation of non-uniform residual stress distribution using incremental hole-drilling and slitting techniques

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Highlights:

- Development a linear relation between the elastic strain and eigen-strain.
- Calculating of constant eigen-strain fields instead of variable residual stress.
- Stress distribution pre-assumption through the thickness of specimen is not needed.
- Simpler calculations by using finite element method.
- Deduction of ill-conditioning effect by using the singular value decomposition

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