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A robust approximation method for nonlinear cases of structural reliability analysis

Mohammad Amin Roudak , Mohsen Ali Shayanfar ,  
Mohammad Ali Barkhordari , Mohammad Karamloo

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## Highlights

- A reliability algorithm in the category of approximation methods is proposed.
- The algorithm is a generalization of HL-RF method in computing reliability index.
- Two adjusting parameters are included in HL-RF method.
- The parameters help to control the instability of HL-RF in highly nonlinear cases.
- The algorithm is robust and efficient while keeping the simplicity of HL-RF.

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