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## Residual Stress Interaction on Gear Manufacturing

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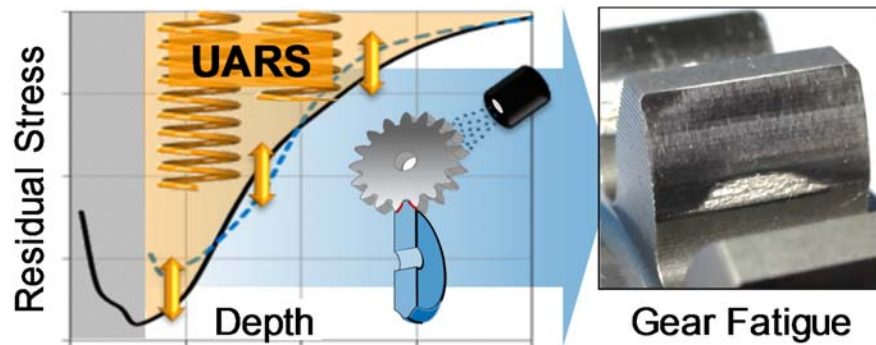
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### Graphical abstract



### Highlights (up to 85 characters, with spaces)

- *The gear integrity depends on residual stresses of the entire manufacturing chain.*
- *The magnitude of the system modification is proportional to the unstable area.*
- *The mode in which the energy is rearranged is a function of the disturbance source.*
- *The interaction effects directly drive the gear lifetime and its failure mode.*

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