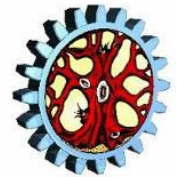


# Forschungszentrum Karlsruhe in der Helmholtz-Gemeinschaft

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## A MOST SIMPLE GRAPHIC WAY TO REDUCE NOTCH STRESSES BY GROWTH







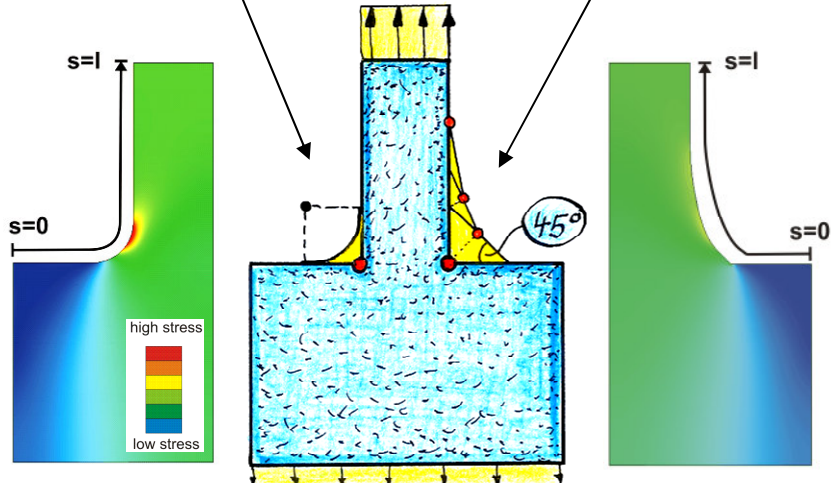


TREES GROW  
EXTRA WOOD  
AT OVERLOADED  
PLACES

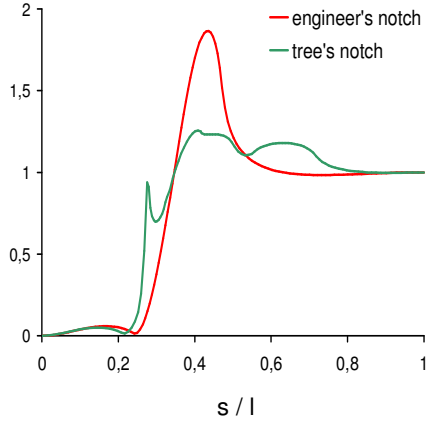
HOW TO OPTIMIZE



ENGINEER'S NOTCH ← versus → TREE'S NOTCH



Local stress / applied stress



BI-AXIAL  
LOADING

