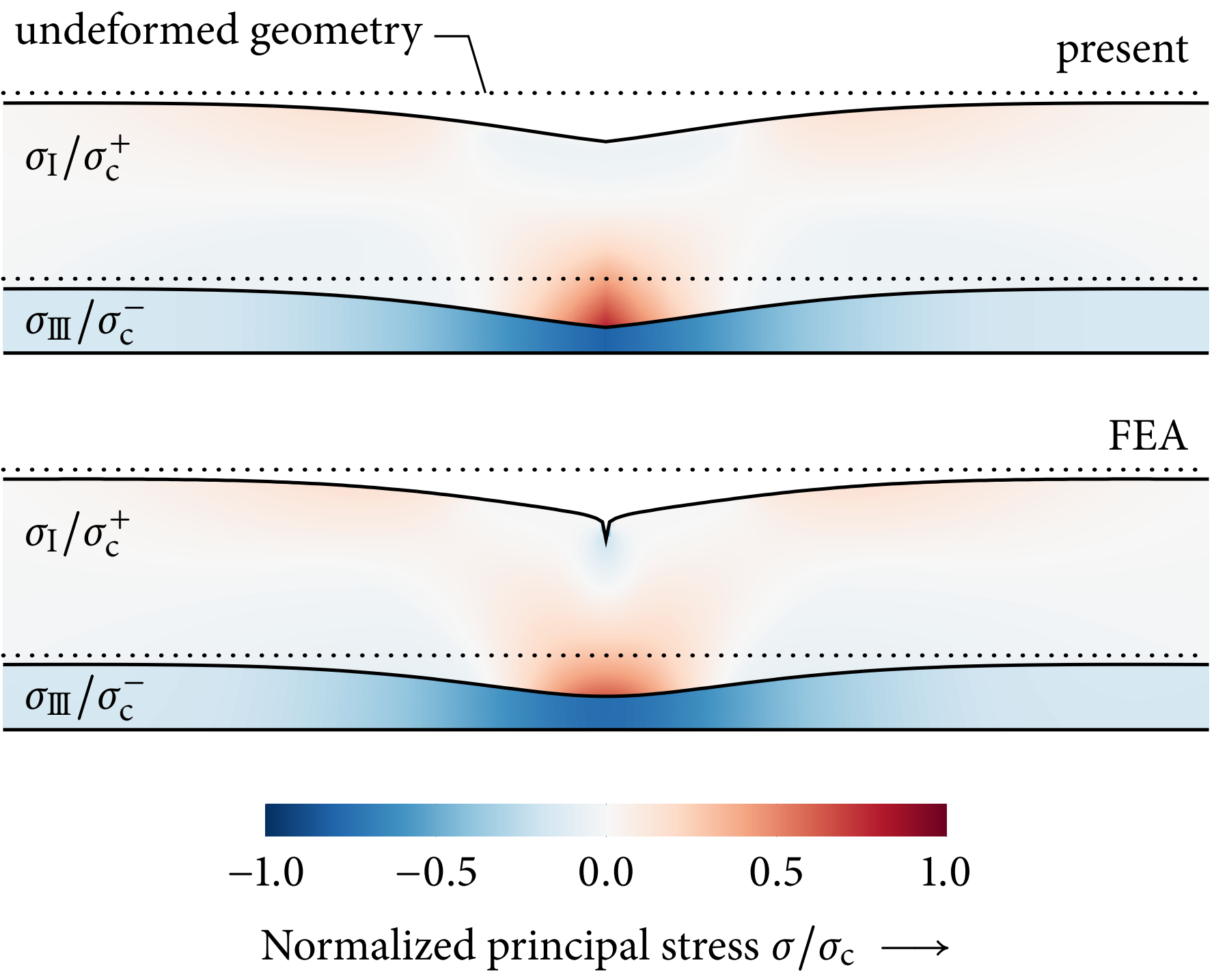
undeformed geometry
present
$\sigma_{\mathrm{I}}/\sigma_{\mathrm{c}}^{+}$
$\sigma_{\mathrm{III}}/\sigma_{\mathrm{c}}^{-}$
FEA
$\sigma_{\mathrm{I}}/\sigma_{\mathrm{c}}^{+}$
$\sigma_{\mathrm{III}}/\sigma_{\mathrm{c}}^{-}$
−1.0
−0.5
0.0
0.5
1.0
Normalized principal stress $\sigma/\sigma_{\mathrm{c}}$ ⟶