

Literature of damping

According to Eurocode National annex of Denmark, the logarithmic decrement is estimated to $\delta=0,05$ for steel structures. This yields a damping ratio of:

$$\delta := 0.05$$

$$\zeta := \frac{\delta}{\sqrt{4 \cdot \pi^2 + \delta^2}} = 0.008$$

Also advisors desk, AD330 Vibration of staircases, suggest a low damping ratio of 0,5% (Zeta= 0,005).