Structural Performance Database

The development of performance models depends on the availability of performance data. PEER is contributing to the solution through...

Data Collection (~500 columns)

Model Development

\[ \frac{\Delta_{\text{spall,calc}}}{L} \% = 1.6 \left( 1 - \frac{P}{A_g f'_c} \right) \left( 1 + \frac{L}{10D} \right) \]

\[ \frac{\Delta_b_{\text{calc}}}{L} \% = 3.25 \left( 1 + k_e \rho_{\text{eff}} \frac{d_b}{D} \right) \left( 1 - \frac{P}{A_g f'_c} \right) \left( 1 + \frac{L}{10D} \right) \]

where \( k_e = 45 \) for rectangular columns

\( = 150 \) for spiral-reinforced columns