Continuous Beam Loading Modeled with Lumped Weights

q

F_2 $q(y)$ continuous loading

y

F_1

F_2

F_3 approximate
lumped loading

F_4

y

$$q_i = \frac{2F_2}{y_{i+1} - y_{i-1}}$$

q calculation of
lumped loading

$q=0$ F_2

y

0 1 2 $i-1$ $i+1$ $n-1$ n

i

$W = F$ experimental
setup

clamp firmly   weights

δ

mounting surface