Correlations between Axial and Oblique Loaded Column

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In an impact, a structure is rarely subjected to pure axially loading. Load endured by an axially loaded column has been analytically derived by previous researchers, whereas it is very limited works on predicting the obliquely loaded column performance. In this study, the force response curve of the obliquely loaded empty aluminum column is analyzed and compared to its axially loaded column. Theoretical formula to calculate the axial mean force has been applied to obliquely loaded column, and it has yields a largely deviated value. Thus, a modified equation to cater for obliquely loaded column has been proposed.