

## عنوان مقاله:

Stress Mode Superposition for a Priori Detection of Highly Stressed Areas: Mode Normalisation and Loading Influence

## محل انتشار:

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## خلاصه مقاله:

From the economic and technical point of view, the reduction of development periods and required resources represent a considerable benefit. For the reduction of numerical effort and processed data in numerical stress analysis, the present paper is focused onto the investigation of an efficient method for the a priori detection of a structural component's highly stressed areas. Based on the theory of stress mode superposition and the frequency domain solution of the decoupled equations of motion, an analytically consistent approach for a priori mode superposition is presented. In this context, the influence of multiaxial loading and mode normalisation is investigated.

.Validation is performed on a simplified industrial model of a twist-beam rear axle

## کلمات کلیدی:

Durability analysis, fatigue hot spot, dynamic stress analysis, high stress prediction, computational efficiency

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1249757>

