**Crushable Frame Springs for Concept Design Stage Automotive Crash Analysis**

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Traditional methods of automotive vehicle crash analysis involve complex high fidelity FE models that are expensive in terms of build time and computational resource. The crushable frame spring (CFS) method, a reduced fidelity modelling technique, replaces shell elements in the crash structure of a vehicle with a small number of spring elements. This reduced fidelity model enables simulation led design by reducing analysis response time, providing information earlier in the concept design phase of a vehicle development programme than would otherwise be possible.

This presentation will provide an overview of the CFS method and show validation example using a public domain FE model.

