



The Influence of Model Complexity on the Impact Response of a Shuttle Leading-Edge Panel Finite Element Simulation

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BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. LS-DYNA simulations were conducted to study the influence of model complexity on the response of a typical Reinforced Carbon-Carbon (RCC) panel to a foam impact at a location approximately midway between the ribs. A structural model comprised of Panels 10, 11, and TSeal 11 was chosen as the baseline model for the study. A simulation was conducted with foam striking Panel 10 at Location 4 at an alpha angle of 10 degrees, with an impact velocity of 1000 ftsec. A second simulation was conducted after removing Panel 11 from the model, and a third simulation was conducted after removing both Panel 11 and T-Seal 11. All three simulations showed approximately the same response for Panel 10, and the simplified simulation model containing only Panel 10 was shown to be significantly less expensive to execute than the other two more complex models. This item ships from La Vergne, TN. Paperback.



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