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**Numeric techniques for viscoelastic or highly porous heterogeneous materials** KENNETH JORDAN, JOHN BORG, Marquette University — Since the advent of computer simulations, the dynamic shock compaction of homogeneous ductile engineering materials has enjoyed a long history of success. The shock compaction of materials which demonstrate more complicated constitutive relations, such as extremely porous heterogeneous materials or viscoelastic materials, has proven more challenging. This talk focuses on the implementation of constitutive relations and numeric techniques for resolving the shock compaction of either highly porous or viscoelastic materials in a Lagrangian hydrocode configuration. For both materials, results are compared to experimental data obtained in a one-dimensional shock configuration.

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