



## GMA08

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#### ENHANCED BEAM MODELS FOR DELAMINATION TOUGHNESS TESTS: MIXED-MODE FRACTURE TESTS

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The delamination toughness of composite laminates is commonly assessed via tests on beam-shaped specimens. In mixed-mode fracture tests, asymmetry is introduced either in the load conditions (e.g., mixed-mode bending, MMB) or in the specimen's geometry (e.g., asymmetric double cantilever beam, ADCB). Models based on Timoshenko's beam theory have been developed for both cases by adding elastic-fragile interfaces connecting the separating sublaminates. Through an appropriate change of variables, the fracture modes are partitioned and explicit solutions deduced.