## Keypoints on the identification and validation of physical-based material models

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## Talk summary

The prediction of the response of heterogeneous structures until final failure is still a challenge today. The development of physical-based models, which account for the elementary degradation mechanisms within the material and enable interaction and redistribution at the structural level, requires robust identification and validation strategies. A variety of choices can be made at this level, concerning the test configuration(s), the pertinent scale(s) of observation and the indicators to be retained for comparison with modeling and simulation.

This talk focuses on the modeling of polymer matrix laminated composites via a mesoscale approach. The keypoints of the identification and validation strategies are illustrated via their applications to some specific test cases.

## Short CV

Dr. Federica Daghia obtained her PhD in Structural Mechanics at the University of Bologna (Italy) in 2008. She is currently Assistant Professor (Maître de Conférences) at the École Normale Supériere de Cachan. Her research work concerns the experimentation, modeling and simulation for the prediction of the response of polymer matrix composite structures under mechanical and environmental loadings.