

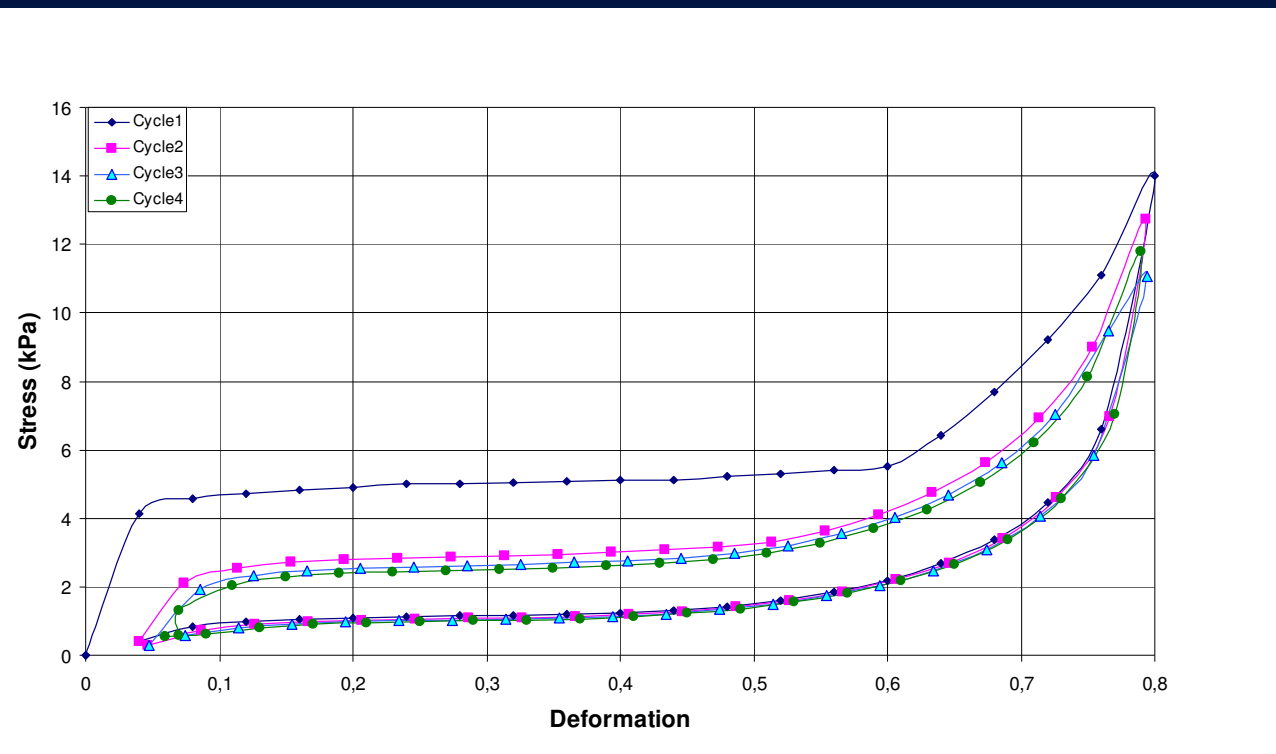
GMA08
Riunione del Gruppo Materiali
dell'Associazione Italiana di Meccanica Teorica ed Applicata (AIMETA)
29 febbraio e 1 marzo 2008, Genova

Strain localization and cyclic damage of polyurethane foam cylinders in uniaxial cyclic compression

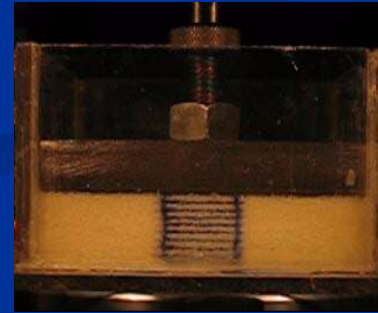
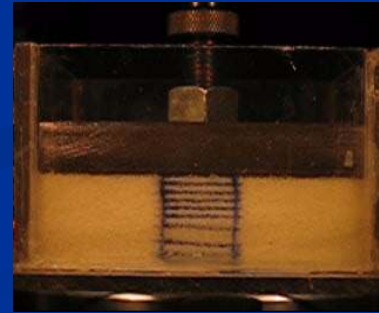
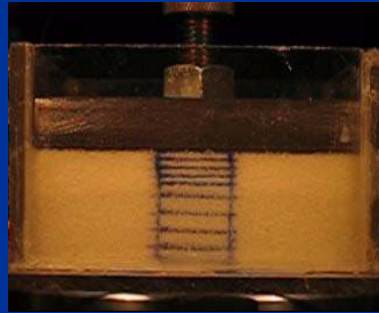
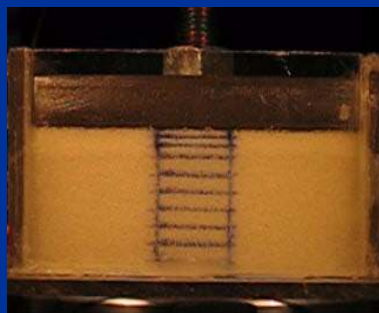
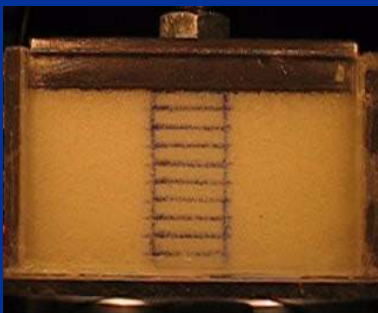
Giampiero Pampolini, Gianpietro Del Piero

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Laboratoire de Mécanique et d'Acoustique, CNRS., Marseille*

Cyclic damage

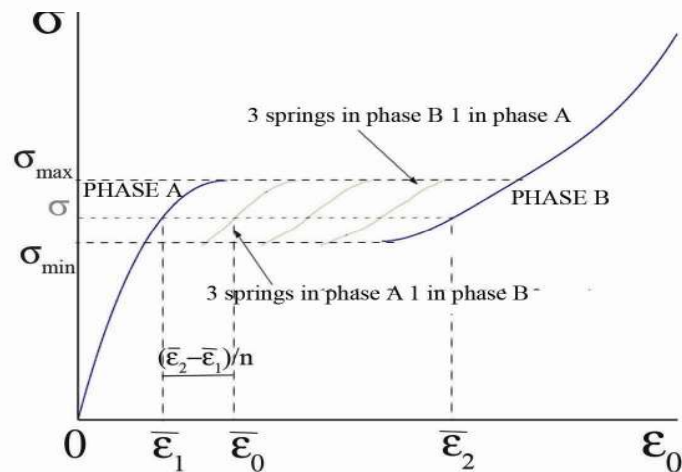
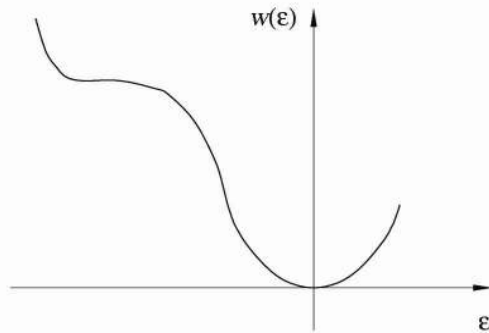
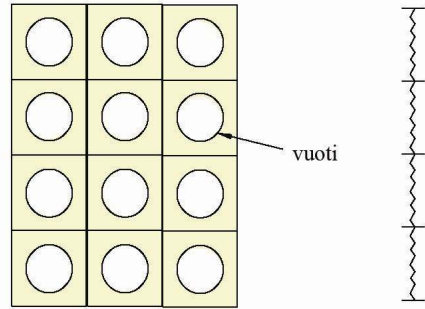


Non homogeneous deformation



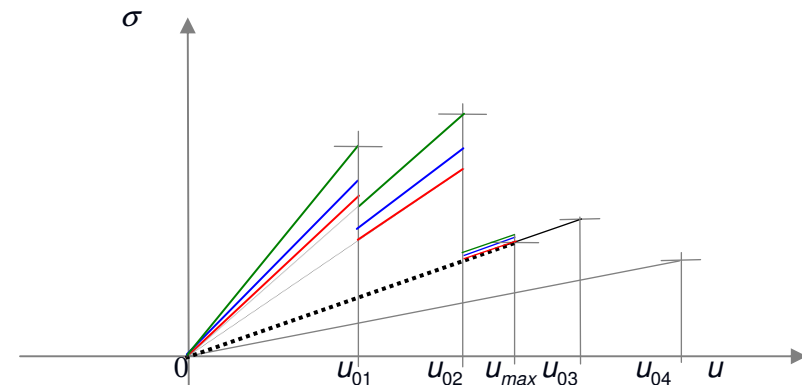
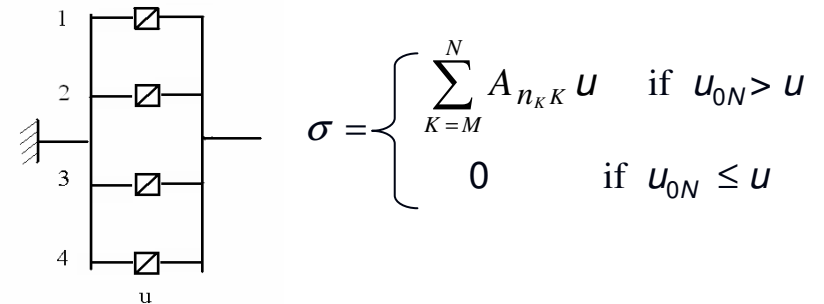
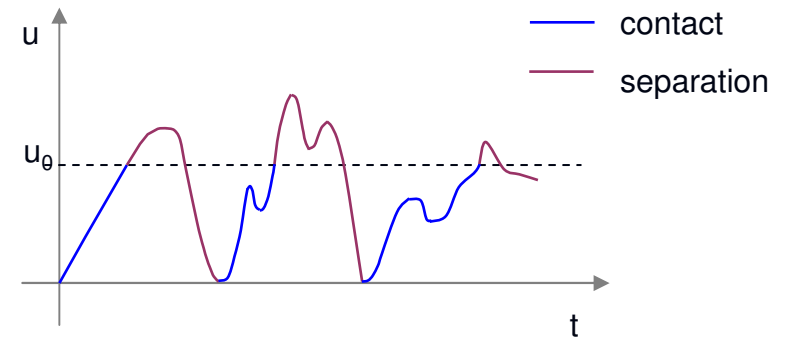
Model for strain localization

(G. Pampolini, G. Del Piero, *Strain localization in polyurethane foams. Experiments and theoretical model*, in preparation)



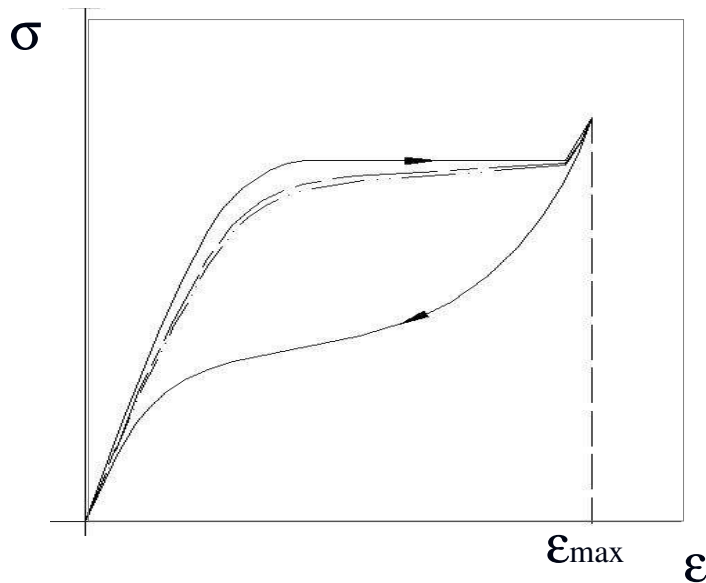
Model for cyclic damage

(G. Del Piero, *A Rheological Model for Cyclic Damage and Recoverable Adhesion*, Communication at the VI Meeting Unilateral Problems in Structural Analysis, Siracusa 2007)

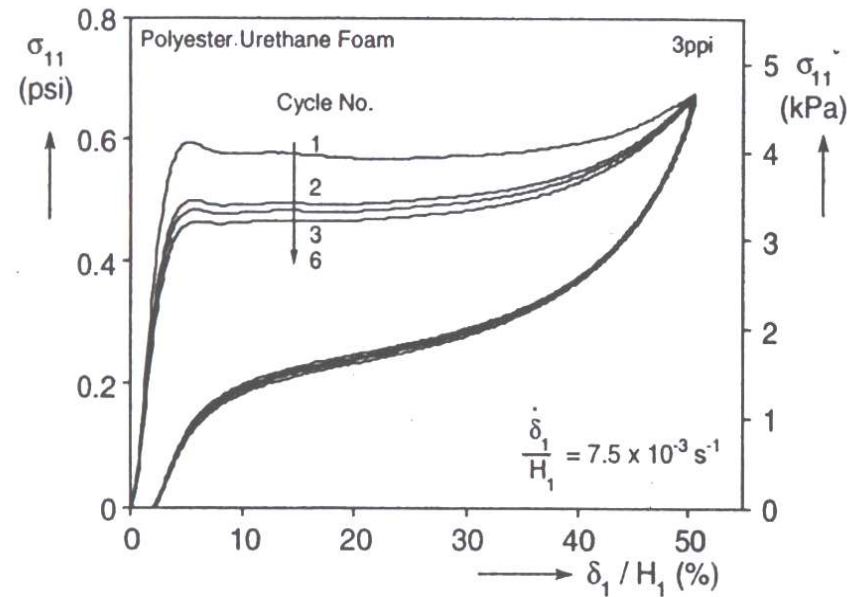


Results and Future developments

Coupled Model



Tests performed by Gong et al.(2005)



- To perform more compression cyclic tests to better understand the cyclic mechanical behavior.
- To extend the model beyond the 1D case.