



Bias Extension Analysis

The shear response of fabrics and fabric reinforced composites is often characterised with the Bias Extension test. Ideally, the specimen will show three regions of different uniform deformation. The derivation of material property data is based on this assumption. Recent analysis has shown that this assumption of uniformity is questionable, which gives rise to doubts with regard to the applicability of (all) measurement results obtained so far (!). These questions can be resolved by means of finite element simulations and dedicated experimentation applying digital image correlation.

contact: R. Akkerman, r.akkerman@utwente.nl, room N-212