Bayesian defect modelling

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Framework

Bayesian model calibration is to be adopted for making the inference on the material and/or defect parameters ξ based on the observed defective samples, and through forward modelling by defining a defect as a deformation field parameterised by ξ. The posterior derived for (calibration) parameters ξ is then used for further FE modelling in order to assess their effect on material strength.

Defect definition. Wrinkle

System. Data. Model

Covariance structure

Linking to calibraiton modelling

Design questions