

# The importance of micromechanics in the understanding of transverse strength concept in composites

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**DW on transverse strength**

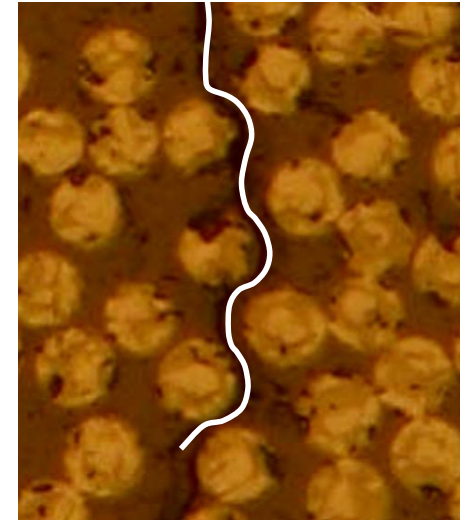
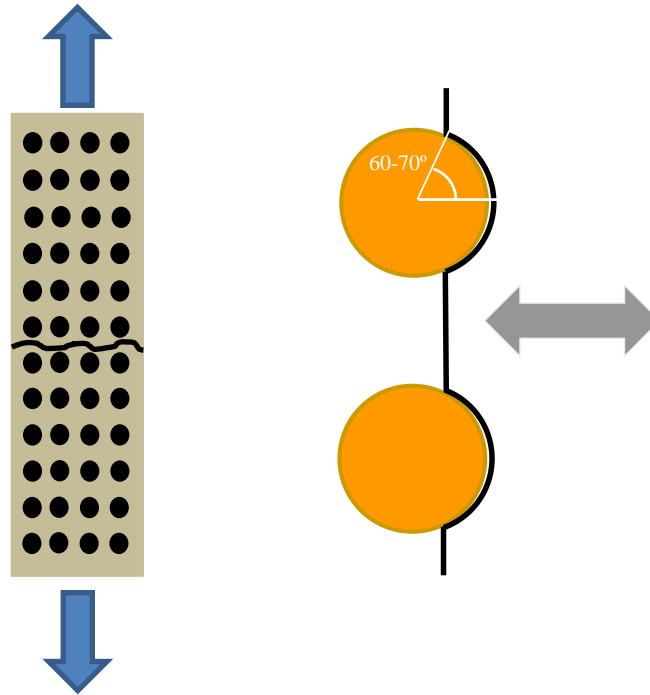
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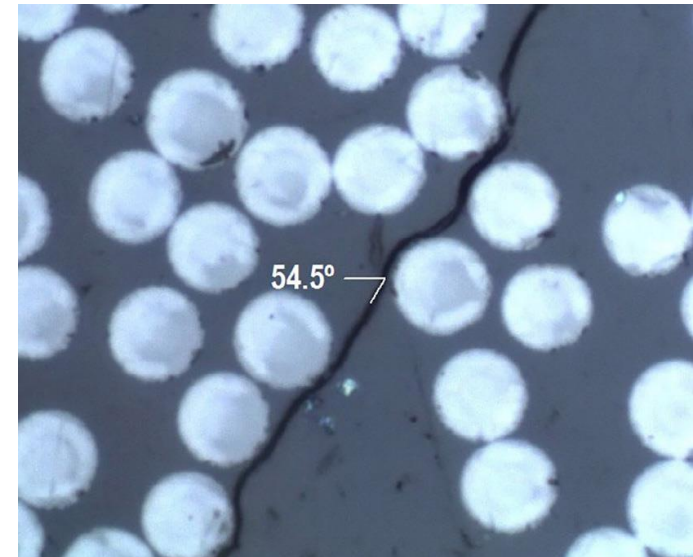
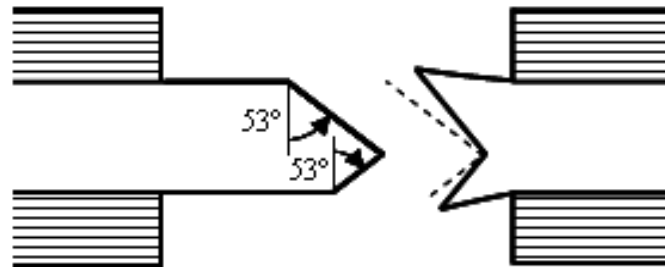
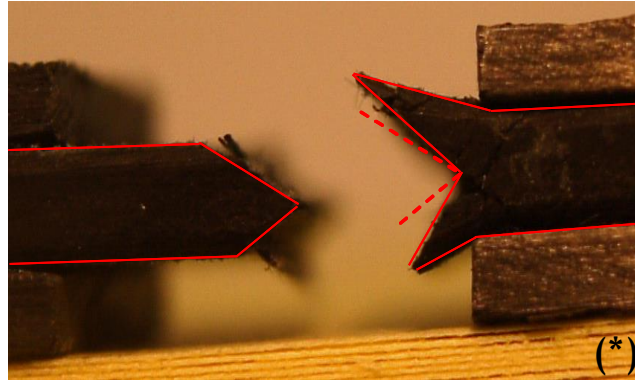
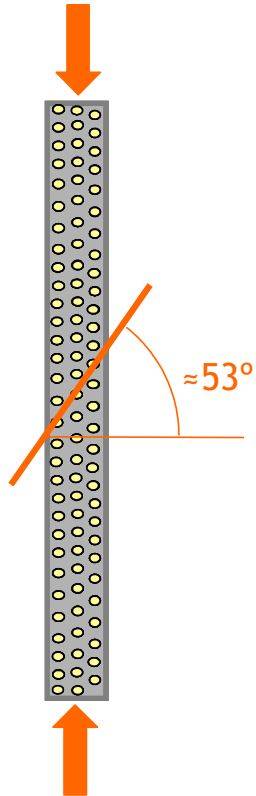


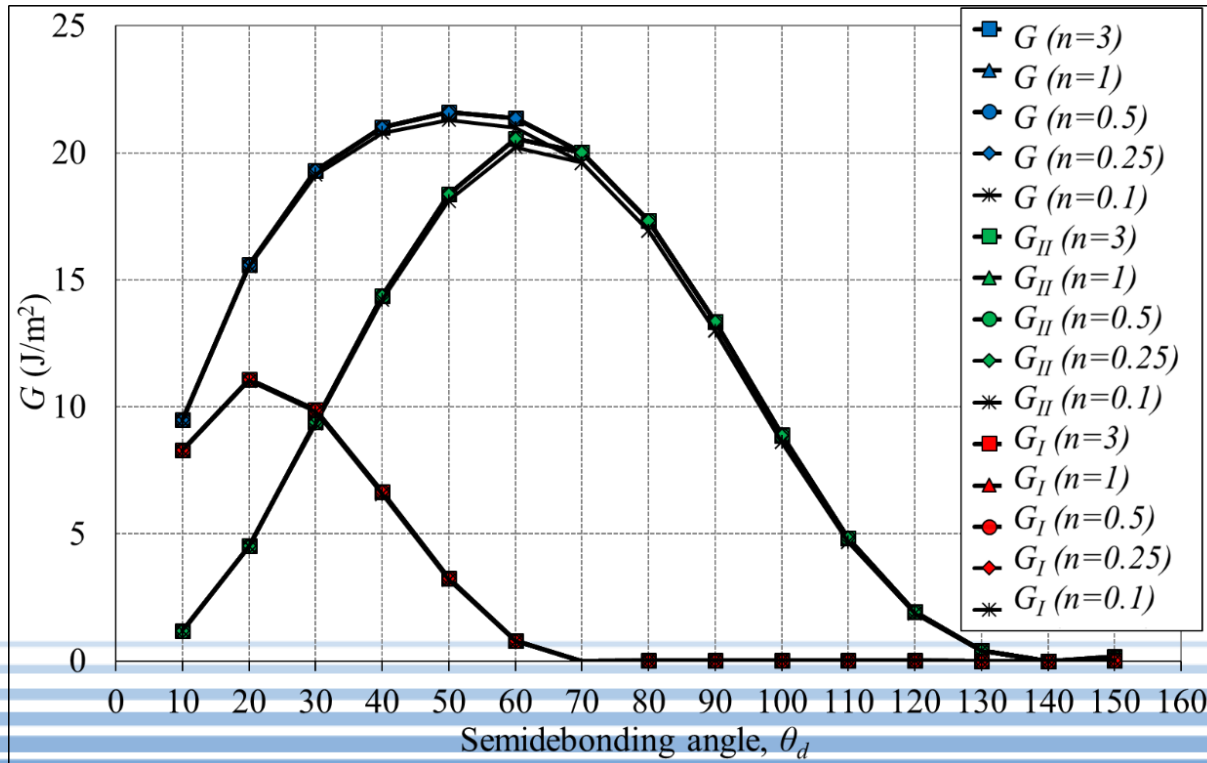
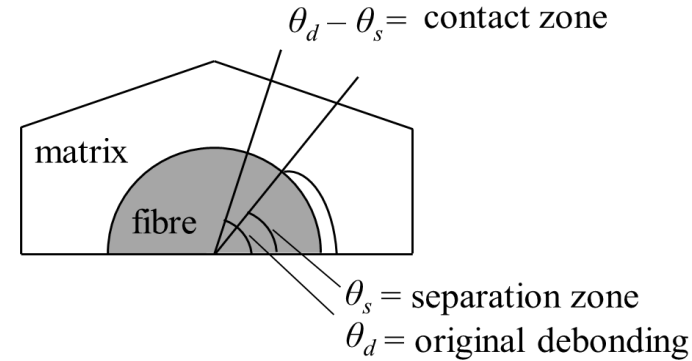
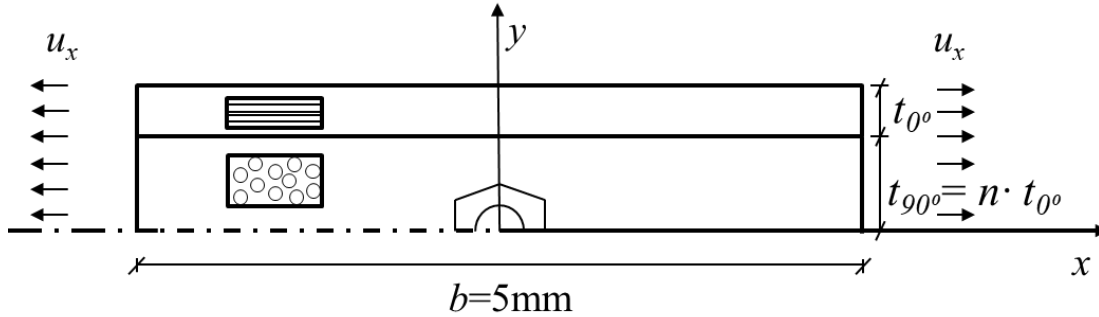
# A Study of Failure Criteria of Fibrous Composite Materials

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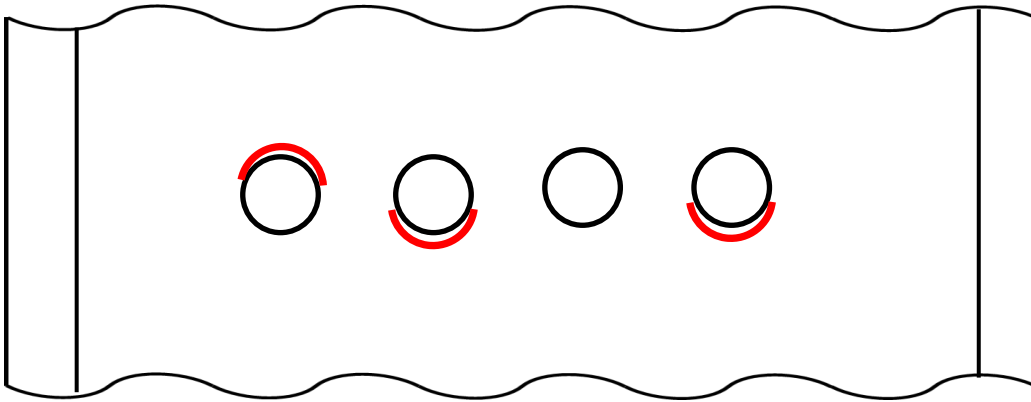
# MICROMECHANICAL STUDY OF TRANSVERSE FAILURE UNDER COMPRESION



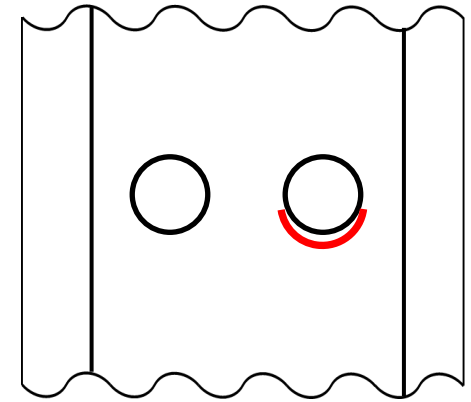


There is the same probability of getting isolated debondings in laminates with thick and thin 90 degrees laminas.

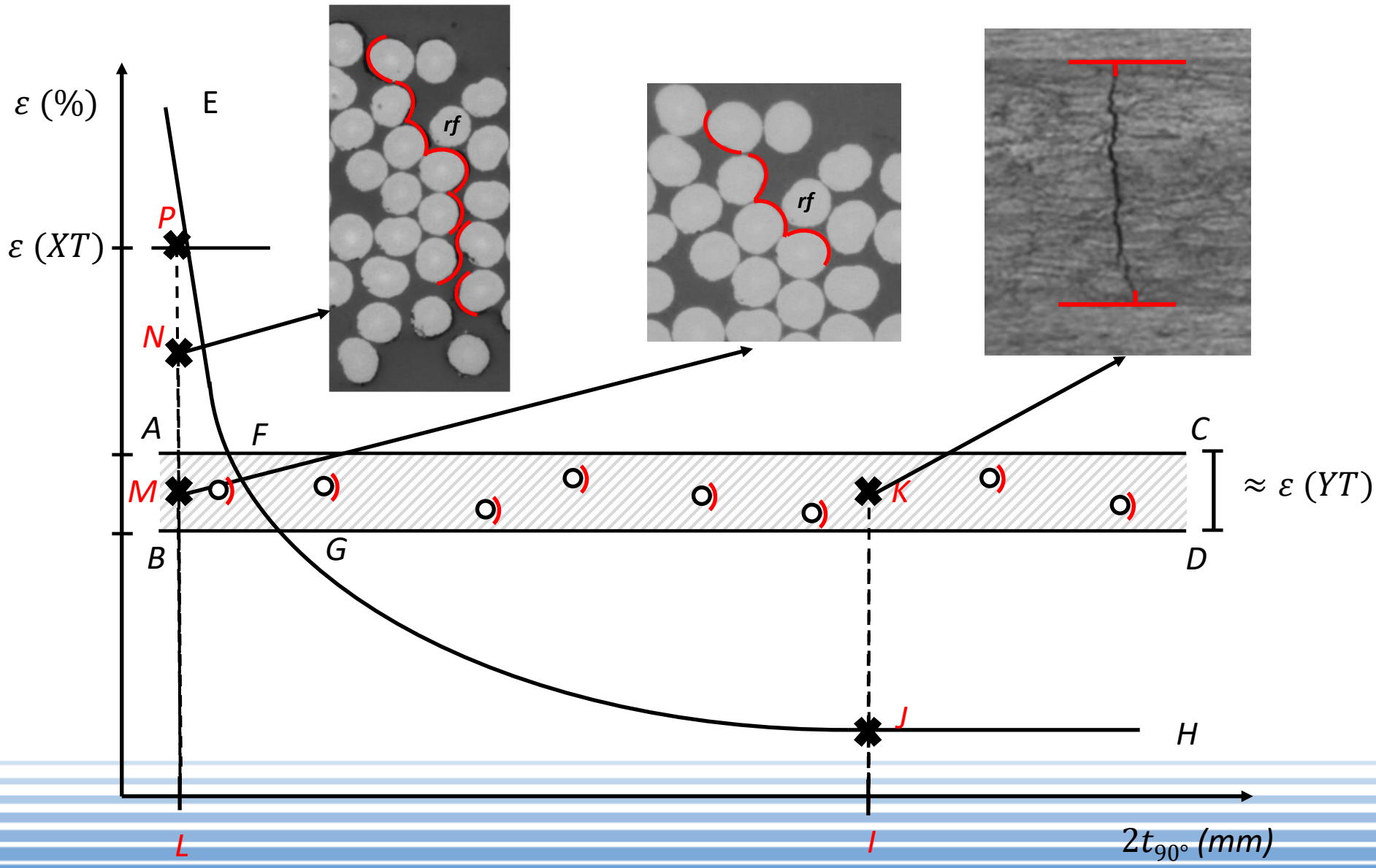
Same probability of getting isolated debondings in laminates with thick and thin 90 degrees laminas, **but it does not imply the same probability of observing them**



Thick (90°) laminates



Thin (90°) laminates



## What do we understand by STRENGTH?

- If Strength is understood as the abandoning of the Pristine state, there is no in-situ-strength as damage always starts at the same level of deformation
- If Strength is understood as the creation of a damage in the 90 degrees lamina that at least reveals the presence of a transverse crack, then the denomination of in-situ Strength can be acceptable and is now fully understood

