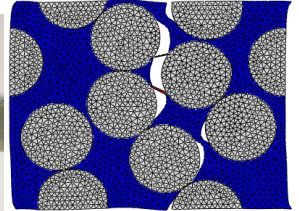
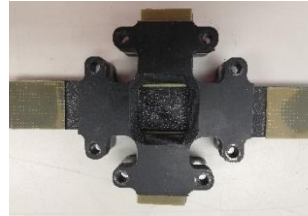


Laboratory of Continuum Mechanics and Theory of Structures Research (Toledo, Spain)

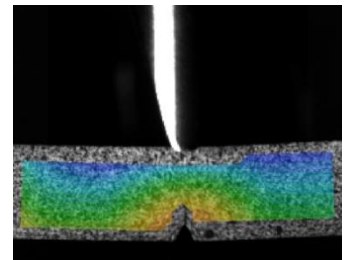
Research lines:

- Mechanical testing of materials and structures: static and impact
- Fibre reinforced composite design
- Finite element analysis
- Design of non-standardized tests



Facilities and equipment

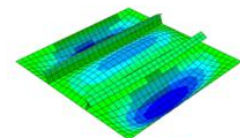
Instron 5969 universal testing machine: load capacity in up to 50 kN, actuator travel of 1212 mm, and speeds between 0.001 and 600 mm/min. Equipped with fixtures to perform tension, compression, 3- and 4-point bending and Iosipescu shear tests (ASTM D5379), among others.



Cortazar Systems S.L. hot-platen press: designed for basic polymer and composite material processing operations. Two facing 300x300 mm plates are pressing on the material up to a maximum closing force of 10 t.



Correlated Solutions High-speed 2D and 3D Digital Image Correlation (DIC): capacity to perform DIC in 2 and 3 dimensions. Firstly, two digital cameras for measuring deformations in three-dimensional surfaces.



Other strain measurement equipment: Instron uniaxial extensometer, deflectionmeter and a KYOWA PCD-430A strain amplifier, with 4 acquisition channels for strain gauges and strain gauge rosettes.

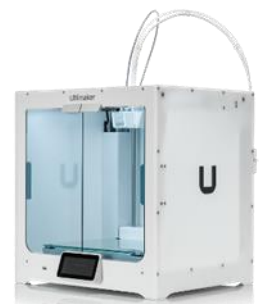
**SIMULIA
ABAQUS**

Instron CEAST 9340 instrumented drop-in-weight tower: equipped with guides through which an impactor is dropped onto the specimen to be tested.



W20 P Workstation: network computing server, equipped with 24-core AMD Ryzen Threadripper 3900X processor, 128 GB DDR4 RAM and NVIDIA Quadro Pascal P1000 V2.

Ultimaker S5 FDM printer: fused deposition modelling of thermoplastic materials and short fibre reinforced polymer composites.



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