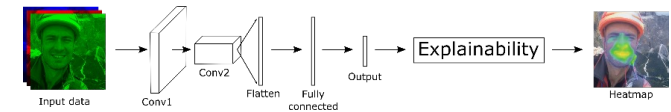
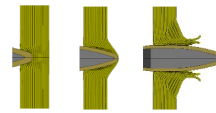


Structural integrity under extreme load



Topic: In-depth investigations on composite materials

•TITLE: Modelling of nanocomposites

•RESEARCH BACKGROUND:

•Adding nanofillers inside composite materials can not only improve the mechanical properties but also introduce multifunctional applications. The modelling of nanocomposites can be helpful for their design and applications.

•RESEARCH ACTIVITIES:

1. Study different modelling strategies on nanocomposites (with a special focus on their fracture behaviours)
2. Modify/develop methods for the modelling of nanocomposites
3. Introduce multifunctional properties into the numerical modelling (optional)
4. Develop an algorithm with machine learning method for nanocomposites (optional)



•METHODOLOGY: Numerical – Programming – Experimental

•DURATION: 9 months

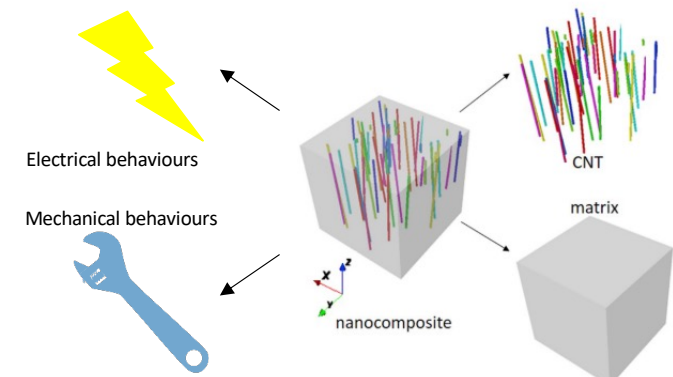
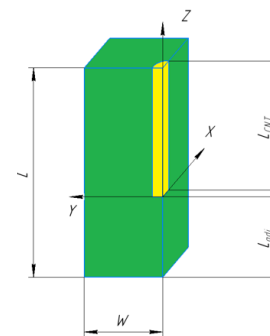
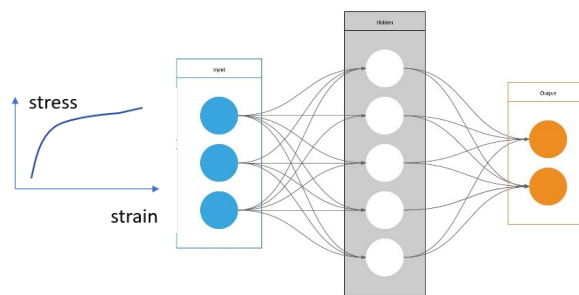
•CONTACTS:

andrea.manes@polimi.it

dayou.ma@polimi.it

francesco.cadini@polimi.it

marco.giglio@polimi.it



•POSSIBLE COLLABORATIONS:

•Ghent University (Belguim)