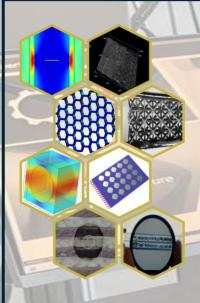
# LAMPS:

## Where interfaces between Mechanics and Physics is explored

#### **Equipment:**

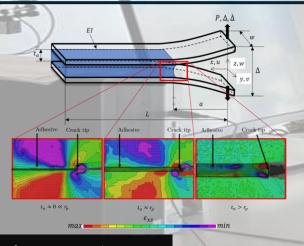
- Electromechanical universal testing machine;
- DCB (Double Cantilever Beam) test machine;
- DIC (Digital Image Correlation);
- Temperature chamber for universal testing machine;
- Miniature 5kN tensile machine;
- Sample Preparation for DIC;
- Keyence 3D Measurement System
- SLA, DLP, SLS and composite 3D printers;
- 20tons hot press;
- Laser engraver;

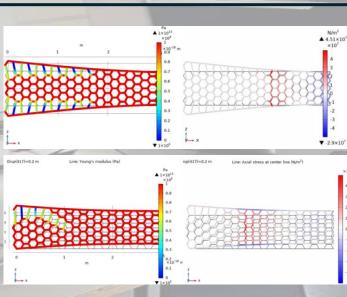




#### **Research Areas:**

- Architected materials, interfaces and surfaces
- Design of lightweight materials and structures
- Mechanics and failure of composite materials
- Joining of composites and hybrid materials bonding;
- 3D printed composites via FDM, SLA and SLS;
- Mechanics of Materials, Fracture Mechanics, Multiphysics, Multiscale





### **Collaborations and Projects:**

- CNES, France (Design of bonded joints within Ariane 6 program)
- DoD, USA (Design of architected materials for the Department of Defance)
- TERMA, Grundfos, LEGO, WattsUpPower, Space Composite Structures Denmark, Danish Graphene, VELUX, JSB/Gurit, Siemens Gamesa, DTI

Contacts: LAMPS: Ahmad Madary

amadary@mpe.au.dk

Research Group: LIGHTWEIGHT materials and structures

Michal K. Budzik mibu@mpe.au.dk







