Development of a Carbon-fiber reinforced polymer-based mechanics for embedding ALPIDE pixel sensors in the High-Energy Particle Detector space module onboard the CSES-02 satellite.



HEPD-02 tracker based on monolithic pixel sensors ALPIDE, an innovative platform with superior performances in the field of pixel detectors, developed for the ALICE Upgrade Experiment at Cern.

Challenge: technology as ALPIDE adapted to the space environment and to the specifications required by the space standards.

Design & **test**: thermomechanical and vibrational qualification test conducted on structure, module and turret elements.

Results: an important premise for using monolithic active pixel sensor in future space cosmic ray experiments.









