

**IMPACT: Integrated Mechanics of Processing  
and Composite Technologies Laboratory**  
The University of Texas at Austin

**Research Impact:**

- **In-Situ Curing Methods**
  - *Shorter process cycles*
  - *Lower residual stress distributions*
  - *Reliable process window identification*
- **Waviness Development**
  - *Increased compressive strength*
  - *Higher quality composite structures for lower cost*
  - *Improved performance predictions*
    - ~ *strength predictions*
    - ~ *performance of initial prototypes*
    - ~ *service life predictions*
- **Defect Criticality**
  - *Identification of most critical defects & most likely catastrophic failure modes*
  - *Demonstration of methods to minimize critical defects*
  - *Improved material characterization models & reliability predictions*