

Surrogate Models for Multiphysics

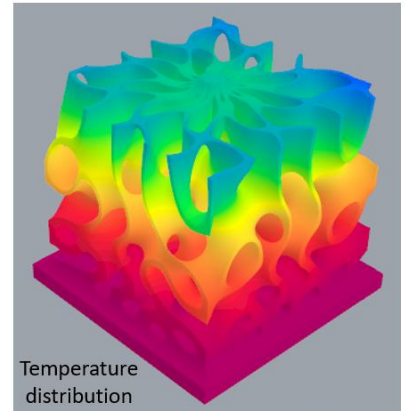


PURPOSE

We enable semiconductor and electronics designers and engineers to run Co-designs.

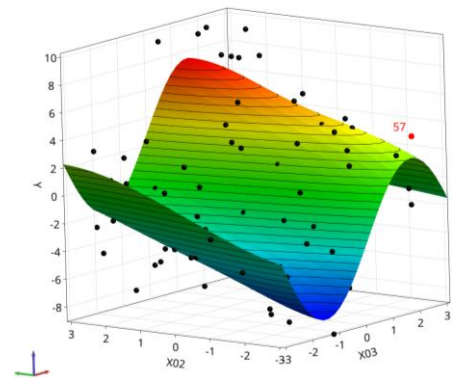
Multiphysics simulations, cutting computation time by over 90%—turning hours or days into minutes without sacrificing accuracy.

We invite early adopters to join us.



APPROACH

- Surrogate models for Multiphysics test cases
- Finite Element Method (FEM) and Computational Fluid Dynamics (CFD) simulations to generate Multiphysics database
- An intuitive GUI, enabling use by non-expert simulation users
- All results validated against established experimental measurements



BENEFITS

- ✓ Over 90% surrogate model accuracy
- ✓ Significantly reduced computational costs
- ✓ Faster results - approx. 10 minutes
- ✓ Efficient Multiphysics simulation
- ✓ Runs on standard laptop hardware
- ✓ Intuitive GUI for non-expert users
- ✓ Fewer design iterations before reaching a manufacturable solution
- ✓ Provides detailed thermal profiles
- ✓ Proposes cooling strategies for improved performance

We are looking for

- Industrial partners to provide measurement data for Multiphysics case
- Industrial partners to test the solution

Contact 

venkat.kandregula@csa.catapult.org.uk

react@gla.ac.uk

CATAPULT
Compound Semiconductor Applications



UK Research
and Innovation