

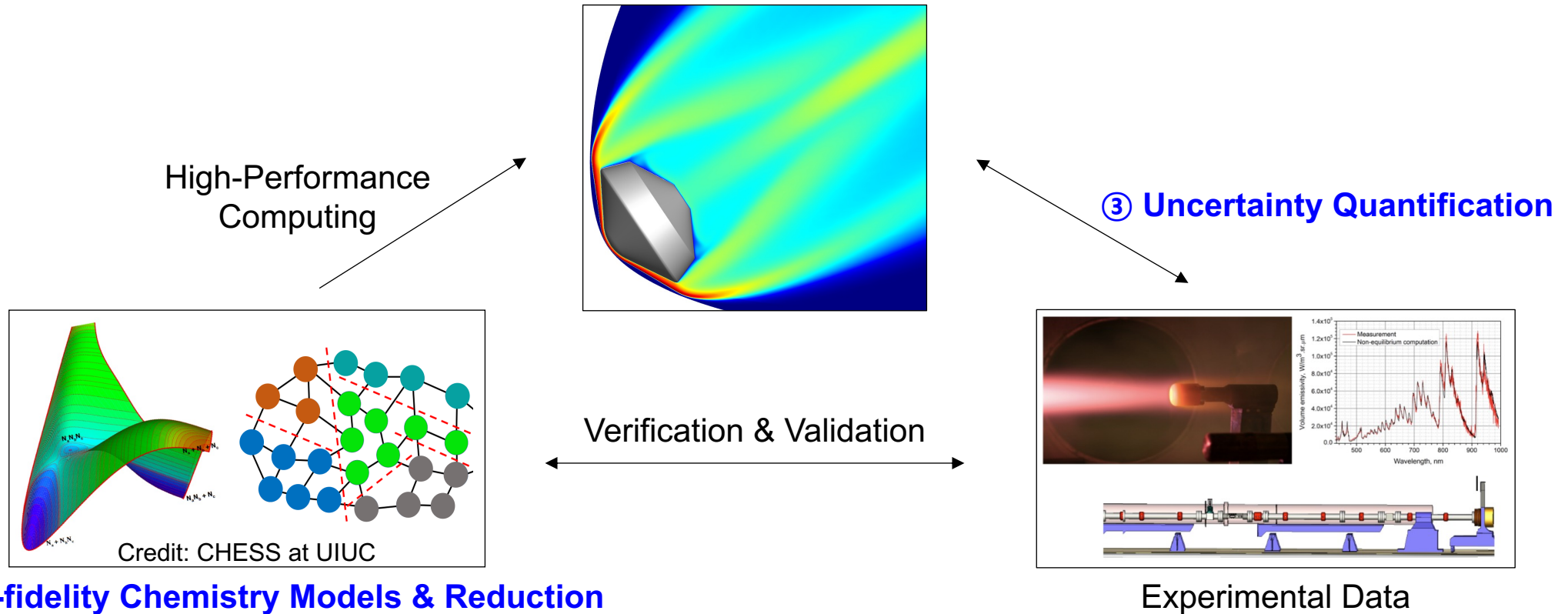
# Applied Aerothermodynamics Group

## What we do

*“Developing novel computational framework for hypersonic entry system design based on ab-initio theory and multi-physics coupled applications”*

- Fundamentals
- Space/defense applications

### ② Multi-physics Coupled Computational Methods

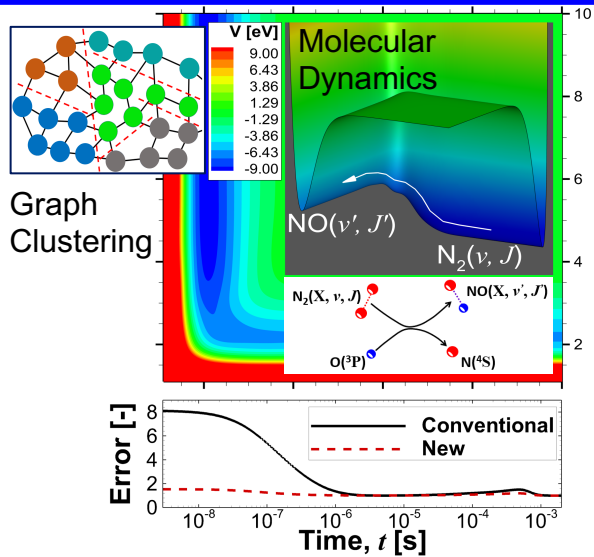


### ① High-fidelity Chemistry Models & Reduction

# Research Novelty

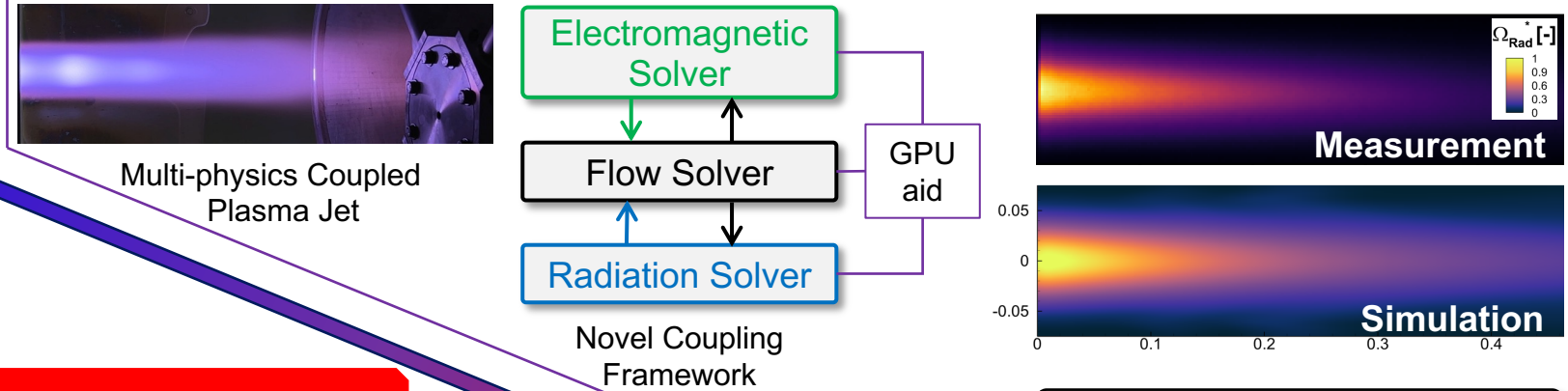
Breakthrough on  
Fundamentals

## ① High-fidelity Chemistry



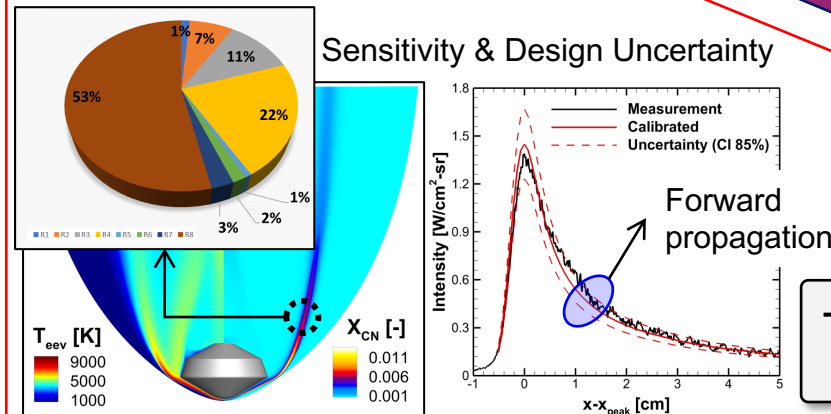
→ Eliminate ad-hoc assumption  
→ First time understanding

## ② Multi-physics Coupled Computational Methods



→ State-of-the-art model  
→ Towards next generation toolbox

## ③ Uncertainty Quantification



→ Next-generation entry mission design effort

Breakthrough on  
Applications