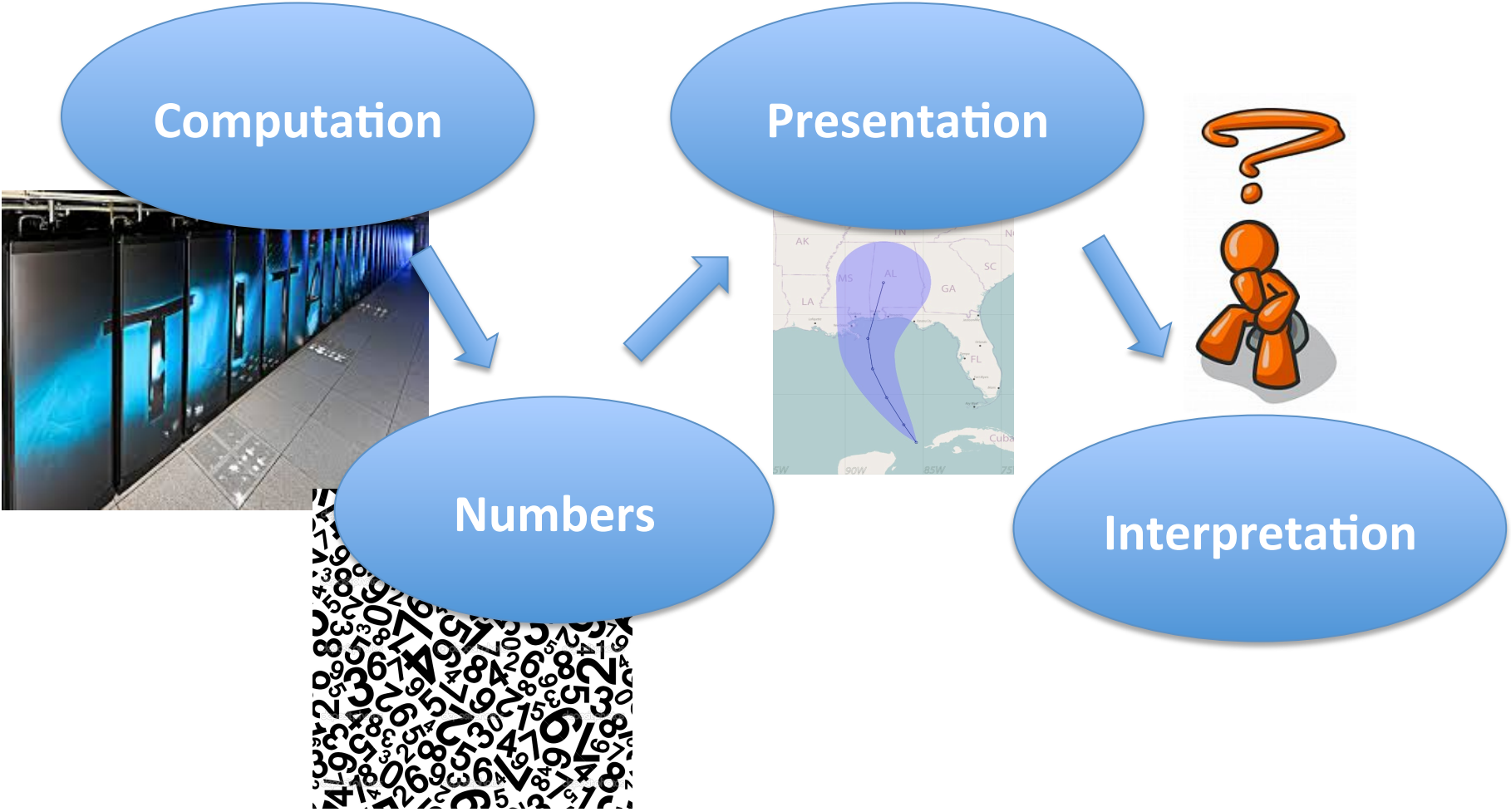


CCC Workshop
Uncertainty in Computation
October 15-16th, 2014
Panel 2

**Making Sense of Uncertainty in
Computation**

communication and decision making

From Data to Decisions



Areas of Opportunity

- Computation
- Communication
- Cognition
- Education

Compelling Use Cases

- Health
- Climate systems
- Earthquakes
- Economic systems
- Crisis management

Computation

- Programming languages that provide representation of uncertainty
- Uncertainty in scientific computation processes
- Ensembles in forecasting
- Software engineering -- getting developers and designers together with end users

Communication

- Languages for presenting uncertainty
 - Verbal, visual, numeric interpretations
- Putting uncertainty in the hands of end users
 - Visual interfaces for reasoning with data
- From ensembles to presentation

Cognition

- How do we develop user studies that inform design?
- Opportunity for large scale studies, observing how humans approach understanding data with a set of diverse tools
- How does the public interpret uncertainty?
- Emotional priming

Education

- If we do nothing open for exploitation
- Training in integration of uncertainty in reasoning about problems
- Panel 3 has more to say about this