

# Panelists Position Statements

- Roy Crosbie, *California State University at Chico*
- Jeffrey Fong, *U.S. National Institute of Standards and Technology*
- Terry Ericson, *Office of Naval Research*
- Pedro Marcal, *Mpave Corporation*

# Synopsis of Presented Needs

- Roy
  - Simulation needs to be specification (reverse approach)
  - No range of certified simulation components
  - Obstacles
    - IP issues,
    - Liability issues,
    - How to define candidate models and submit for certification
    - Which body will operate the process
    - How to distribute the models
  - Q
    - How will the creation process be initiated
    - Which body? IEEE, SCS, SISO?
    - What should happen next?

# Synopsis of Presented Needs

- Jeffrey
  - ... computational models ...
  - Goals
    - Needs (is feasible)
    - International Advisory Board Framework (difficult, time-consuming, but feasible)
    - Forum (is feasible, it is what we have here)
  - “Digital library of mathematical functions”
  - ... funding is needed ...

# Synopsis of Presented Needs

- Terry
  - Liability - Going straight from simulation to a machine
  - No numbers, ... no statistics of like components
  - Compositionality: The combined behavior of components cannot be predicted from individual component behavior alone
  - Simulation: Today for analysis, tomorrow for synthesis
  - Actual implementation always deviates from design spec
  - Real-time simulation
    - Break down design complexity
  - Multi-rate simulation
  - Needs
    - Modeling standards
    - Benchmark models
    - Public library of models
    - A body international volunteer experts for all of the above
    - And ...

# Synopsis of Presented Needs

- Pedro
  - “The end users need to sit down and write a specification of what is needed to make this model work for us”
  - ... must include experiments ...
  - “Finite differences are being used again instead of finite elements”
  - Statistics, multi-model, multi-language, ...
  - ... fault modes of models ... ?