

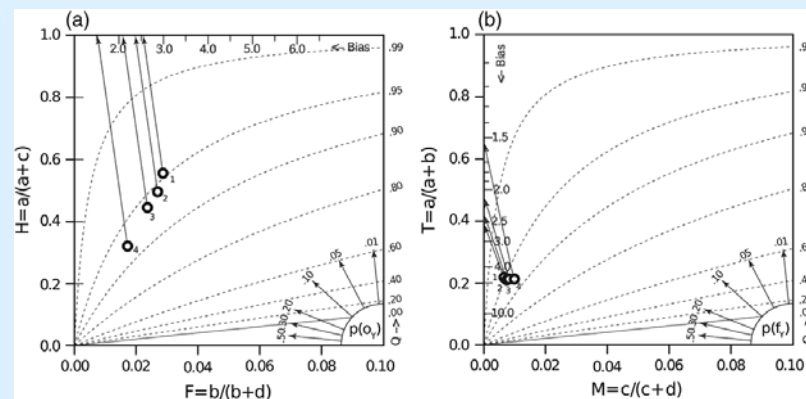
SIP Verification and Validation Panel Discussion

Introduction:	Jason Levit
End-to-end test plan vision:	Ligia Bernardet
Coupled systems:	Jim Kinter
EMC evaluation and MEG strategy:	Geoff Manikin
Tech development, MET+ community:	Tara Jensen
Wrap-up and discussion questions:	Jason Levit

Group discussion

Motivation

- Verification and Validation rapidly gaining in importance
 - Validation of new model algorithms before implementation
 - Real-time feedback for IDSS
 - Lack of common metrics on scales below global
- Community desires more emphasis on V&V efforts
 - Hypothesis: A full V&V software system development and community is on par with a major modeling system
 - Resource allocation for the development of such tools is not
 - CMC – PROGNOS
 - UKMET - IMPROVER



Motivation

Overheard at the AMS Annual Meeting...

- **“We need a Validation and Verification Metrics Workshop”**
 - Done! Tentative for July 17-19 or July 24-26, 2018 @ NCWCP
- **“We need more emphasis on V&V and Post-Processing”**
 - Show ROI for model investment
 - Move beyond standard fields and 500mb AC
 - What are the models good at, that we don't yet know?
- **“V&V, and Post-Processing, efforts have been underfunded”**
 - How do we resource properly throughout the enterprise?



Opportunity

- **New Branch established at EMC**
 - **Community momentum**
 - **Motivate scientific discovery**
 - What are the questions we are asking about model performance, and what metrics are needed to answer them?
 - Where do we need specific, targeted, model improvements?
- **Unification?**
 - Is it time for a system that contains MET+, UPP, and WISPS into ONE re-engineered system?

Discussion Topics

Discussion Topics

- **What is the community vision for an end-to-end Verification and Validation system?**
- **How will this be organized, resourced, and funded?**
- **What are the most important agenda items for the upcoming metrics workshop?**

