Session Summaries

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CCMC Workshop
Friday, April 4, 2014
Using Time Dependent Magnetograms

• I had expected a debate about how to recast the CCMC ROR and Realtime systems to present and process heliospheric model runs with time evolving inner boundary fields (ie at about 0.1AU)

• Instead most of the debate focused on the research problem of how to interpret time dependent magnetograms at the coronal base.

• Conclusions : I need to frame the question more carefully next time.

• Audience was not really primed to present an answer to my question at this time.

• Will work it through the back channels and revisit it at SHINE
Models Configured as Numerical Experiments I

- Surprisingly productive debate
- Discussion led by Spiro
- Prompted by his teams idea to produce a strategic capability code to permit users to explore changes to physics specified in the model.
  - Challenges model robustness
  - Truism: Most physics experiments fail.
  - Most code debugging runs fail
  - Most Model runs will be more like debugging runs than production runs.
Models Configured as Numerical Experiments II

- **Conclusion:**
- Importantly the debate fostered a better recognition of the unique challenges involved, particularly by TR&T management.
- Recognized the need to prepare the ground well in advance
  - Identifying a suitable class of possible users
  - Graduate students and post-docs?
- Recognized that the user engagement will be in the nature of a long term project (similar to thesis work? Within a support or mentor setup).
- Discussed the concept of a synergistic support structure involving the model developers, the CCMC, the user (and their advisers where necessary) and the Heliophysics Summer school.
- Recognized this as a potential opportunity to train the next generation of numerical modelers.
- Recognized a need to formalize planning over the next few years.
Model Resource Needs

- Solicited input from all model developers on the hardware resource requirements anticipated for their models.

- Will collect on excel spreadsheet and circulate to all concerned for markup.

- So far only received 3 inputs (CORHEL, CGEM and OpenGCCM). Need more!
  - Will bug everybody over next few weeks!

- Also discussed question of common software tool needs – No obvious cases identified.