#### **Session Summaries**

Peter MacNeice 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.