Working Group 1-3

Focus: the acceleration and transport of energetic particles and what we can learn about the relationship between SEP events, CMEs, and flares

- magnetic field topology
- flare seed population
- shock formation
flare and/or CME

Seed popn

B-field topology, connectivity, ...

where?

field orientation

flare particles

how strong?

ambient particles

Abundance ratios, composition, spectra, timing, injection profile ....

Previous history of events
Multiple shocks
Multiple accelerations
Ambient medium characteristics
Questions for Solar Community

- Shocks at 2-5 $R_S$
  - Where and how strong
- Magnetic Topology
  - connection to flare, interchange reconnection
- Pre-eruption history (campaign events)
- Blast waves
  - Diagnostics
  - How strong
  - Particle effects
- Relative Timing of Observables (campaign events)
Questions for the SEP Community

- Energy budget
  - particles, shock
- Injection Profiles
  - more examples, more techniques
Questions for Theorists

- Timing differences
  - parallel vs perpendicular shocks
- Blast wave acceleration
  - can it accelerate particles to significant energies
  - resulting measurables (spectra, flux)
Your Task if You Choose to Accept It

- Submit your top 3-5 questions for the other community
- Feed back for how to continue next year
- List of things that you are willing to investigate over the next year