Math and Statistics Breakout Groups

1. **Spatial-Temporal Patterns, including:**
    - Time-series
    - Pattern recognition
    - Multi-scale phenomena
    - Visualization
    - Large-scale simulation

2. **Dynamical systems and statistical physics, including:**
    - Renormalization
    - Singularities
    - Self-organizing complex systems
    - Lagrangian invariants
    - Lagrangian and Eulerian means

3. **Data assimilation and ensemble forecasting, including:**
    - Inverse problems
    - Continuum mechanics
    - Large scale simulations
    - Visualization
    - Multi-scale phenomena

4. **Uncertainty, including:**
    - Predictability
    - Risk
    - Bayesian methods
    - Quantifying uncertainty

- Robustness of models

Additional themes considered:

Education/Crosstraining
New mathematics and statistics
    Computational needs