

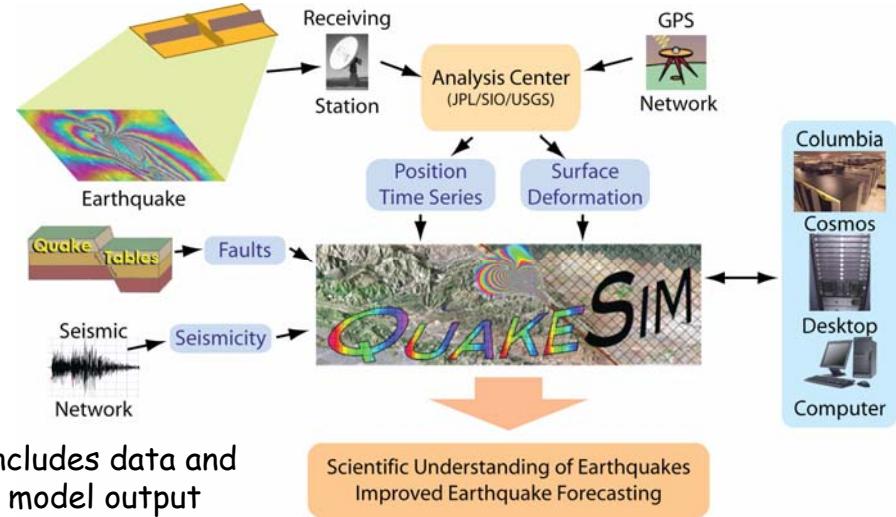
# QuakeSim: Enabling Model Interactions in Solid Earth Science Sensor Webs

PI: Andrea Donnellan, JPL

## Objective

- Improve the modeling environment for better earthquake forecasts, which will ultimately lead to mitigation of damage from this natural hazard.
- Establish the necessary computational infrastructure
- Develop optimal techniques for understanding the relationship between the observable space-time patterns of earthquakes and the underlying dynamics that are inaccessible or unobservable in nature.

## Operational Concept



## Approach

- Integrate real-time and archival sensor data with high-performance computing applications for data mining and assimilation
- Federate sensor data sources, focusing on InSAR and GPS
- Extend QuakeSim to interact with high-end computing resources at Ames Research Center and JPL.

## Co-I's/Partners

John Rundle (UC, Davis)      Lisa Grant (UC, Irvine)  
 Geoffrey Fox (Indiana U.)      Marlon Pierce (Indiana U.)  
 Dennis McLeod (USC)      Terry Tullis (Brown U.)  
 Walter Brooks (ARC)

## Key Milestones

- GPS data federated into portal Aug./2007
- Parallel VC on Columbia and Cosmos Nov./2007
- Prototype InSAR database into portal Mar./2008
- Deployed on Cosmos and Columbia resources Oct./2008
- Fault database expanded to all of California Mar./2009
- Integrate GIS, Sensor Web, codes, and svcs. Sep./2009
- Support for GIS and Sensor Web technologies Sep./2009

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