

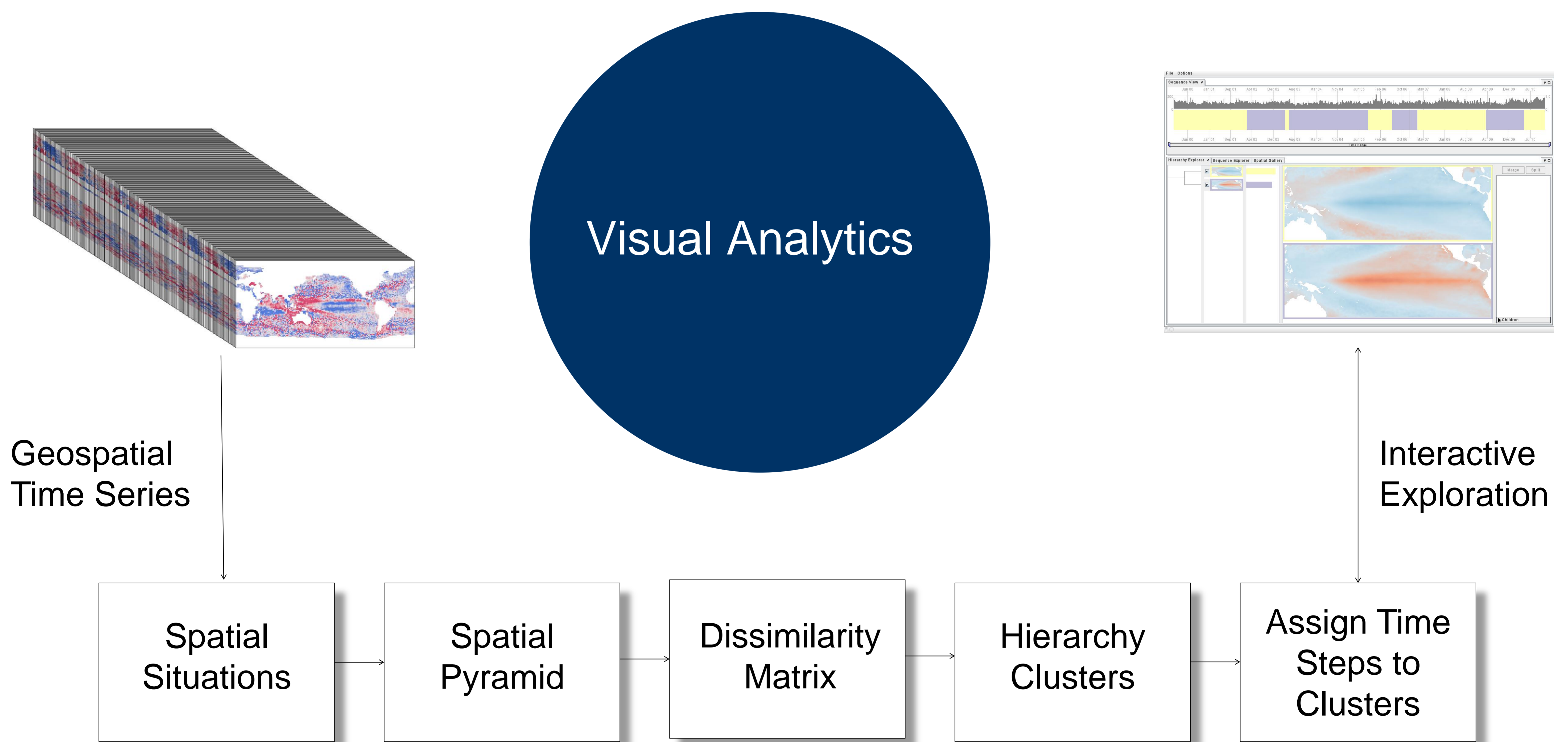
Visual Analytics Approach for the Assessment of Simulation Model Output

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Challenge

Long Geo-Spatial Time Series

Detection of prominent spatial and temporal patterns is difficult to achieve with many methods



High Performance Analytics

StratoSphere
Above the Clouds

- Divide and Conquer (data parallelism)
- Massively parallel execution in cluster/cloud
 - automatic parallelization
 - up to hundreds of machines
- Analysis via dataflow program
 - system operators define parallelization
 - execution of user-defined functions (arbitrary Java code)
- Fault-tolerant execution

Serial vs. Parallel

Different DOP

Interactive Visual Summary

Hierarchy Explorer

Sequence View

Spatial Gallery

Application Example

Collaborator was able to identify

- Green = Central Pacific El Nino
- Red = Eastern Pacific El Nino