CLOSING THE WATER BALANCE USING MULTI-SOURCE DATA FUSION

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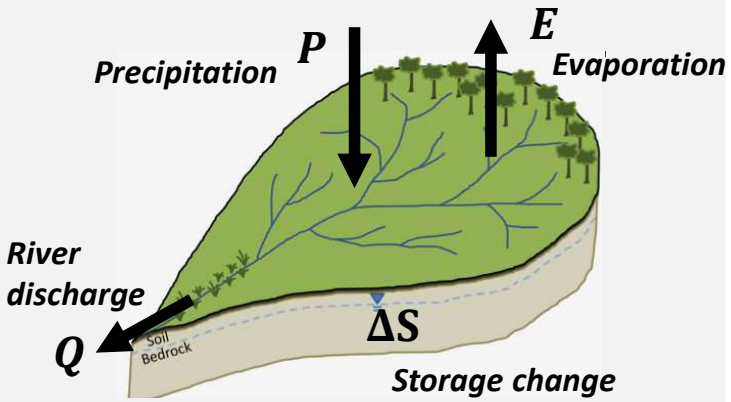
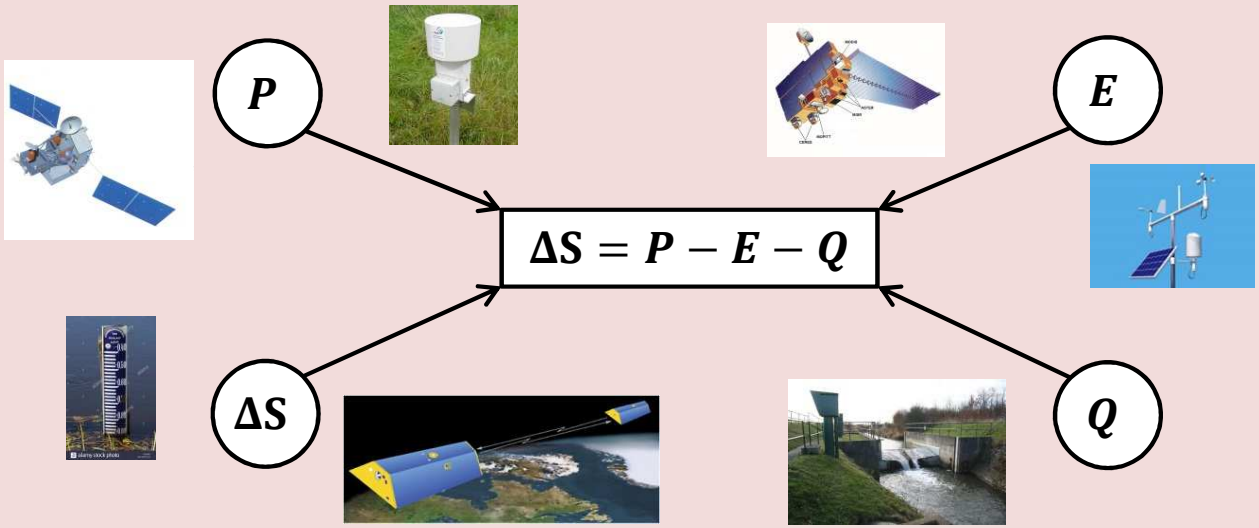
1 Goal: estimate water balance components over an area



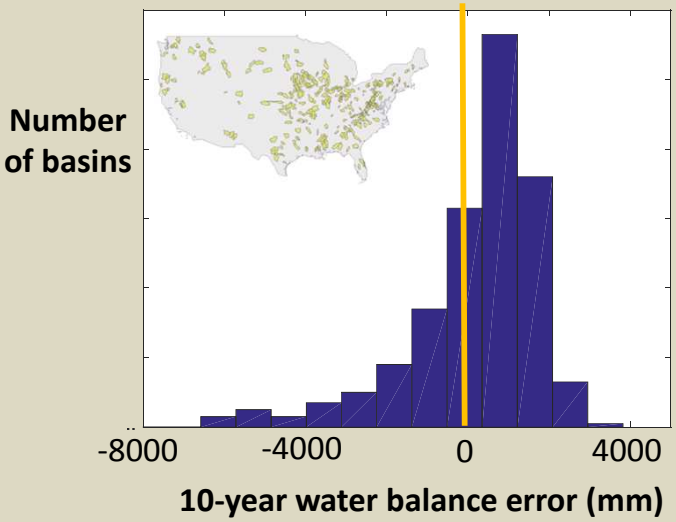
Note: other components possible (lake, city…)

2 Approach: bring together data on all water balance components



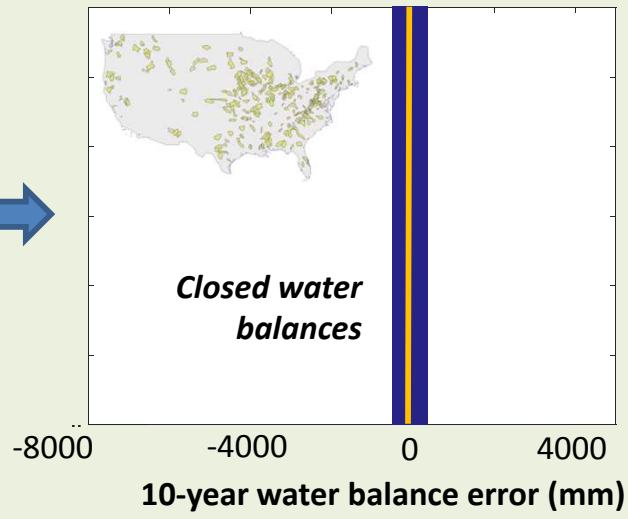
3 Problem: water balance does not close due to data errors

Example: river basins in USA



4 Solution: probabilistic data fusion

Enforce water balance by adjusting all data
Data with larger errors get larger adjustment



Probabilistic estimates of:

1. **water balance components**
2. **systematic and random data errors**