

**Thurs, 4-4-19**

## **9. Correlation (cont.)**

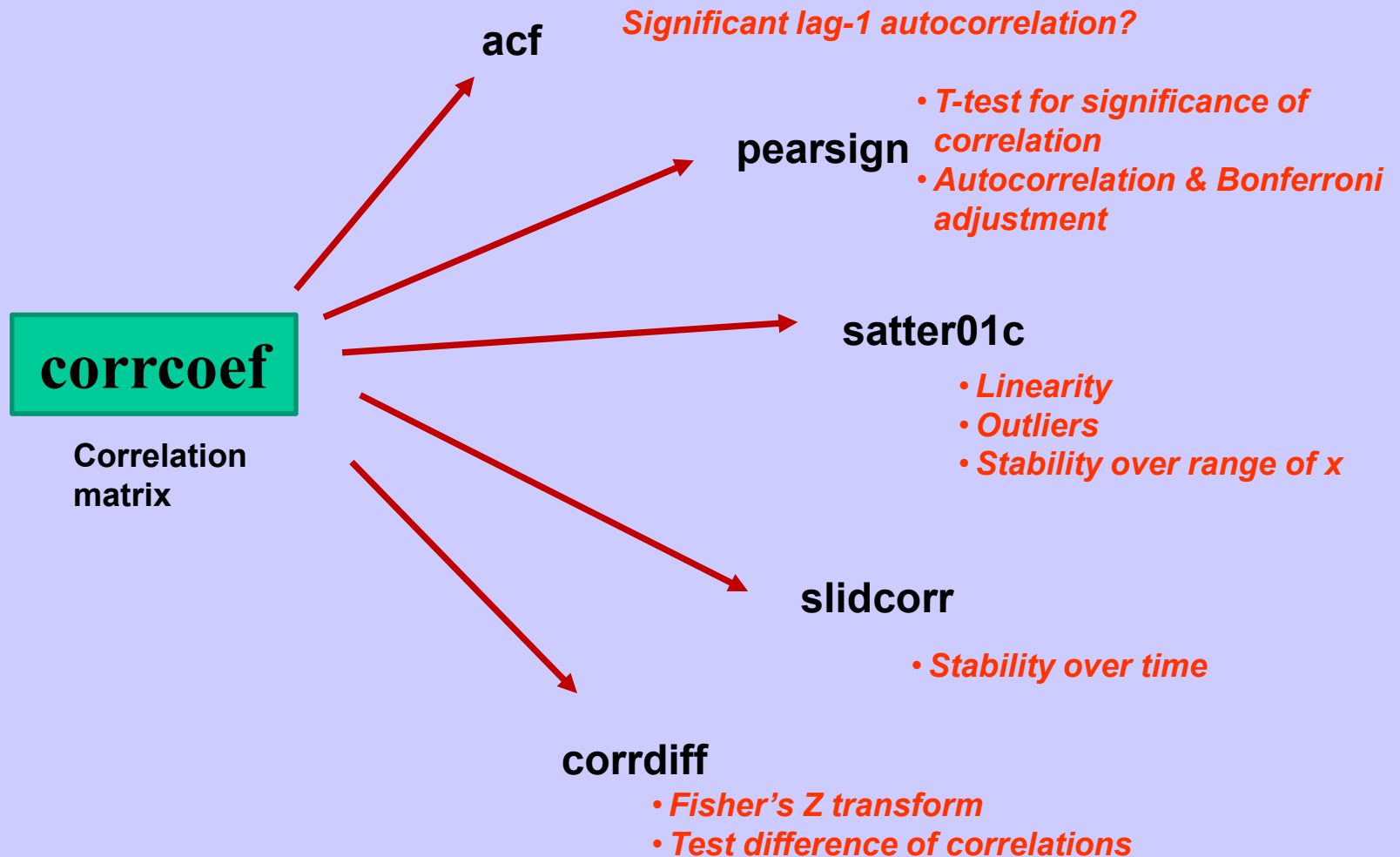
- 1. Caveats on interpretation**
- 2. Functions for correlation analysis**
- 3. Scatterplot diagnostics (demo09a)**
- 4. Sample runs of geosa9**

**Assignment a9: due next Tuesday**

## Correlation: caveats to interpretation

1. Relationship may be nonlinear or outlier-driven
2. Samples may not be “random” samples
3. Correlation  $\neq$  causation
4. Statistical significance  $\neq$  practical significance
5. Lagged effects may be important

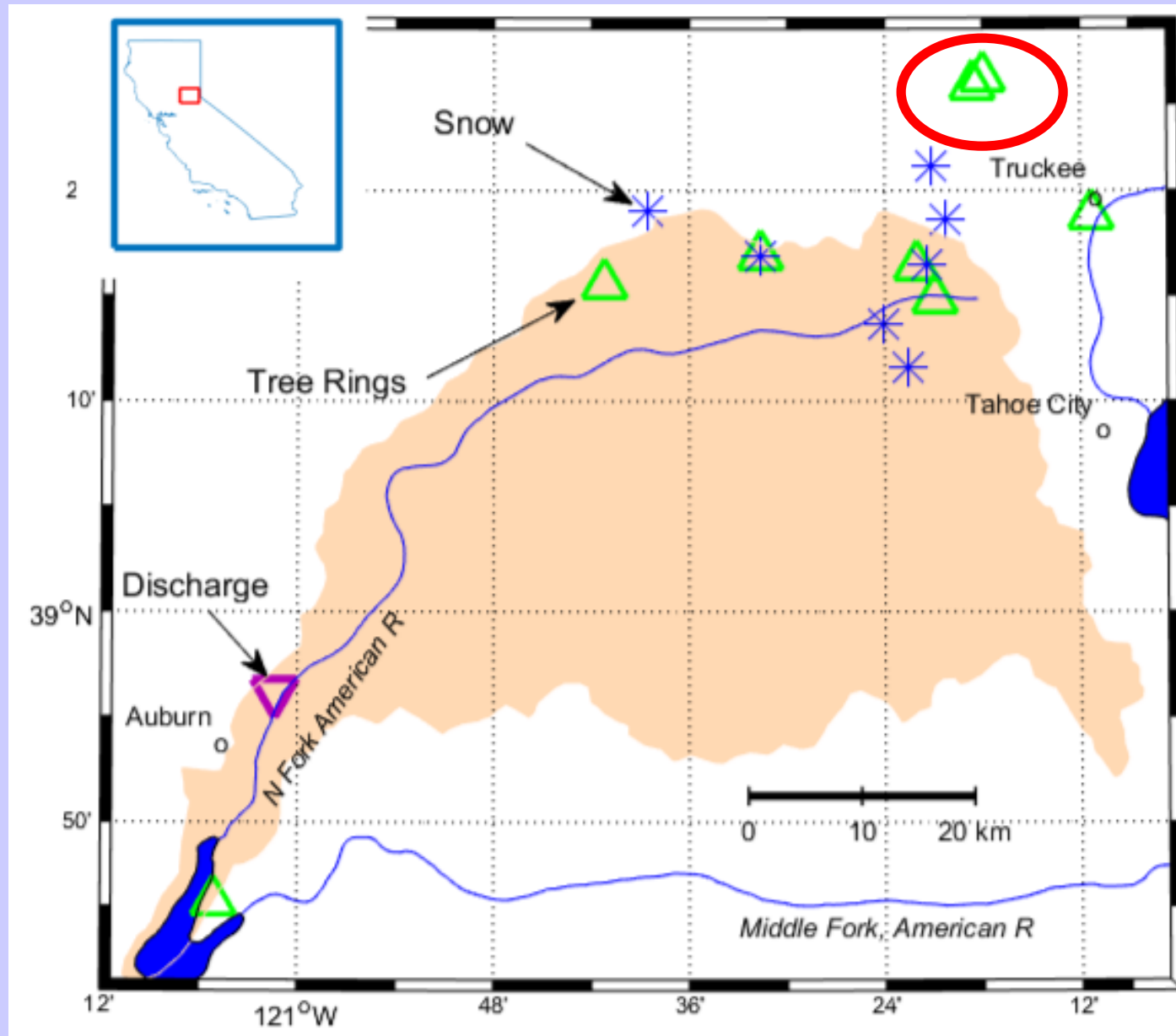
# Functions for correlation analysis



## **demo09a—scatterplot diagnostics**

- **Conditional scatterplots**
- **Corrdiff— testing difference of 2 non-zero correlations**
- **Tree-ring standard chronologies from mountain hemlock and red fir at Carpenter Ridge, CA**

# Basin of North Fork American River



## **Sample runs of geosa9**

# Basin of North Fork American River

