

Statistics 215a - 9/1/03 - D. R. Brillinger

Scatter plots.

plot() - in 2150 files!
Paired data (x_i, y_i) , $i=1, \dots, n$
x and y may be real-valued
e.g. temperatures
x may be time - time series
Cleveland-Kleiner

Types

- Point plots
- Linked points
- Curve plots
- Comparative plots, e.g. boxplots
- Response, y , vs. explanatory, x , as opposed to x and y equal

Difficulties can arise

- Too many points, overplotting
- Duplicate points (jitter)
- Transformations (spread vs. level)
- Outliers
- Perception phenomena
- Scales

Enhancements

- Include reference curve(s)

Percentile graphs

Q-Q plots

Multivariate case

Scatterplot matrix, `pairs()`

Trajectory, `(x_t, y_t)`, e.g. `elk`

2D - `bagplot()`

3D - `persp()`

- `spin()`