

Simulations

$$\omega = \left(\frac{1}{i}\right)_{i=1}^d$$

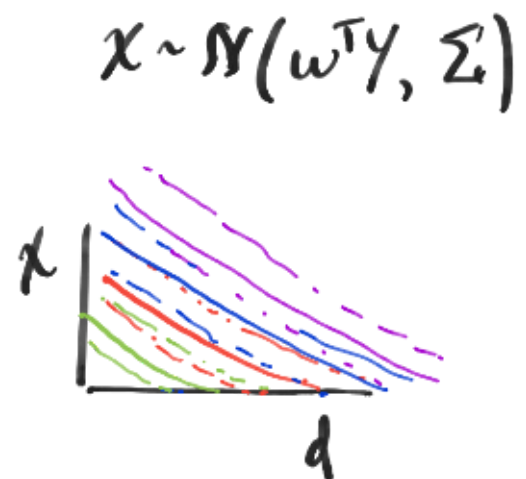
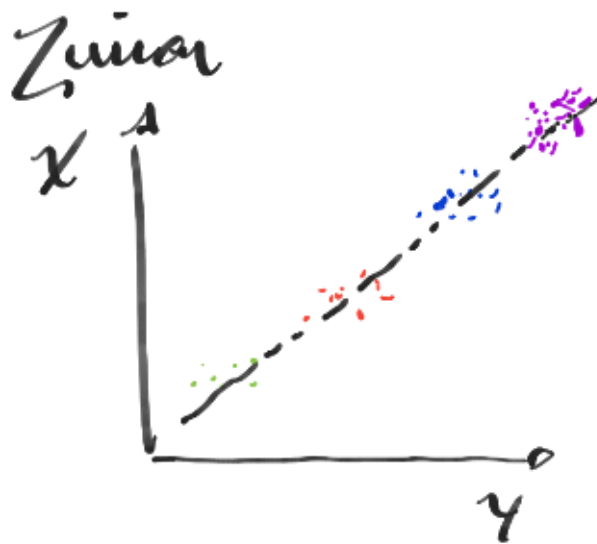
Let $Y = \{y_i\}_{i=1}^n : y_i \in \{1, \dots, K\}$

Equal Class Size

Unequal Class Size

$$|\{i : y_i = k\}| = \frac{n}{K}$$

$$|\{i : y_i = k\}| = \frac{k}{\sum_{k=1}^K k} \frac{n}{K}$$

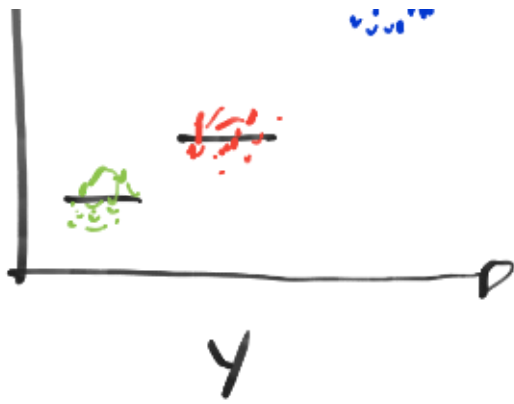


Exponential

x |



$$x \sim N(\exp(\omega^T y), \Sigma)$$

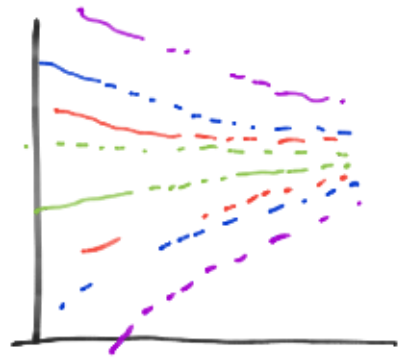


Similar to Above

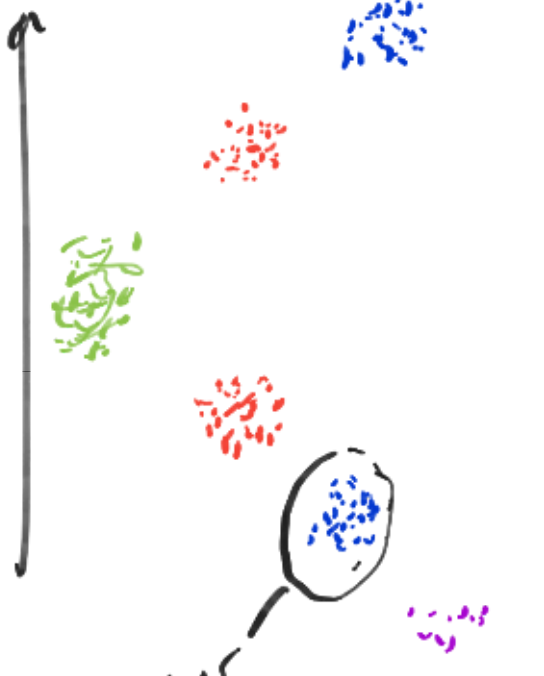
Fat Tails



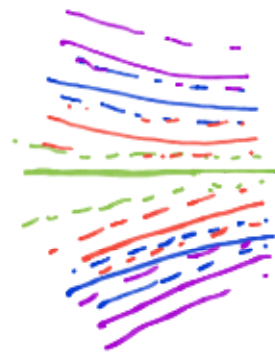
$$x \sim N(0, w^T y)$$



Spherical Symmetry

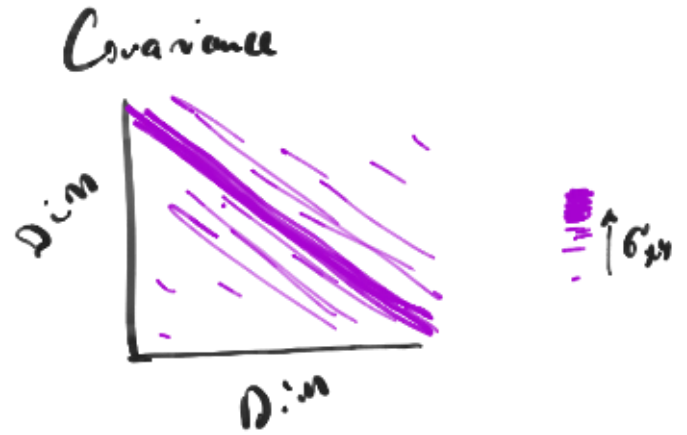
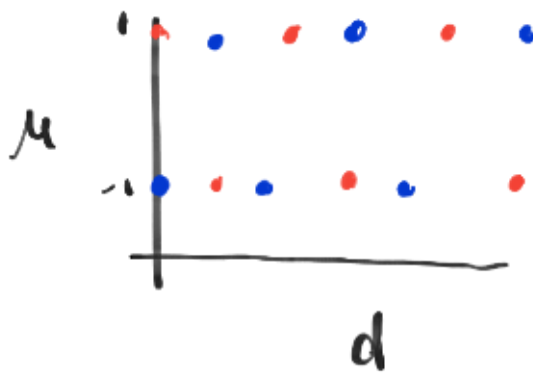


$$x \sim \begin{cases} N(0, \Sigma) & y_i = 1 \\ \text{sph}(w^T(y-1), \text{etc} \\ \Sigma) \end{cases}$$

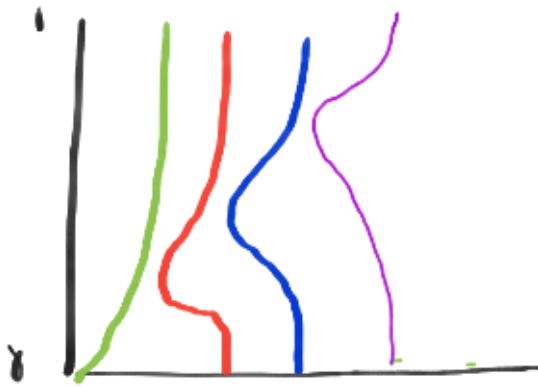


D. Se.
Should
get there

Toeplitz



Beta



$X \sim \text{Beta}(\alpha_{y_i}, \beta_{y_i})^d$
↑
Show that
this is more close
to many graph
models

- ↳ Repeat All at $n=100$ w/ 2 class as well as 10 class as well as 10 unequal class
- ↳ perform in $d=2$ and $d=1000$ dimensions to show low rank performance (ICL-based methods should struggle/fail)
- ↳ Show statistic over 2 runs per approach

↳ Produce Power Plots as well for

$H_0: \chi^2_4$

$H_A: \chi^2_4$

↳ TBD: How could we demo Z-sample test via cohesive simulation setting?

Last modified: 6:59 AM