$$F_{0,\Sigma_{ii}}^{\nu^-(z),\,\nu^+(z)}(y_i) \mid \cancel{A y_i \ldots} \quad y_i \geq y_j \ \forall j$$

$y_u < y_j$

$\Rightarrow y_i > y_u \Rightarrow y_i > y_u$

$\sim \mathcal{U}[0,1]$

~~if $\eta^T \mu_i$~~ if $\mu_i = 0$

$$\boxed{\mathbb{P}(y_k > y^u \mid \quad) \leq \alpha}$$

So if ~~in~~ $\mu_i \neq 0$ then we would ~~exc~~ expect extreme values of this test-statistic & can reject the null hypothesis **using** them.

$\mathbb{P}(y_j > y^u \mid y_i$ is the m…

$[L, U)$: confidence region for μ.

Choose y^u: $F_{0,\Sigma_{ii}}^{\nu^-(z),\,\nu^+(z)}(y^u) = \cancel{0.0}\ 0.95$

~~$\ldots y^u$ s.t. $\ldots = 0.05$~~

then $y_i > y^u \Rightarrow$ reject the null that $\underline{\mu_i = 0}$.

$\boxed{\text{Then}}$ $\mathbb{P}(y_i > y^u \mid y_i \geq y_j)$ $\cancel{= 0.05}$

$\Rightarrow \mathbb{P}(y_j > y^u) = \mathbb{P}(F_{\ldots}(y_i) > F_{\ldots}(y^u) \mid \ldots)$

$= 0.05!$