$$\sum_{i=1}^{n} a_n(i)\, b_n(Y_{ni})$$

Read Anderson's Blog!

Lindeberg says this

$$\boxed{\mathrm{Var}\left(a_n(i)\, b_n(Y_{ni}) \right)}$$

↳ a_n, b_n fixed sequences i.e only randomness is in the permutation!

$$\mathbb{E}\left[a_n(i)\, b_n(Y_{ni}) \right] = \frac{1}{n!} \sum_{k=1}^{n!} \frac{1}{n} \sum_{i} \sum_{j} a_n(i)\, b_n(j)$$

actually can be $\frac{1}{n}$!

$$(14) = \left(\frac{1}{\tau_n} \frac{\max_i \left(a_n(i) - \bar{a}_n \right)^2}{\frac{1}{n} \sum \left(a_n(i) - \bar{a}_n \right)^2} \right) \times \left(\quad \right)$$

$$\frac{1}{\tau_n} \frac{\left| a_n(i) - \bar{a}_n \right|^2}{s(a)^2}$$

So if this $\leq K$. then indeed this converges to zero—!