$N = 1000$

$Y_{0i} \sim NB(\,)$ ← Baseline Outcome Dist.

τ_i ← 1 or 0 ← $NB(\,)$, $N(2,1)$ — effects hetero

$Y_{1i} = Y_0 + \tau_i$

$\tau_i \leq D$

$Y_1 = Y_0 + \tau \cdot sd(Y_0)$ ← R. (τ: vector)

Draw Trt. Sample($0:1, N$) → $Trt = ifelse(\epsilon^{\beta} < 3, 0, 1)$

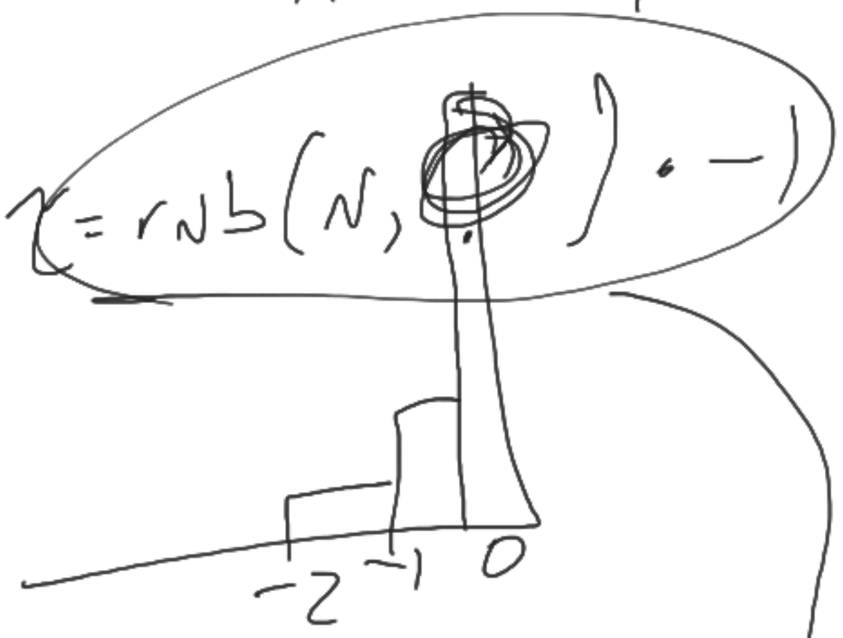
$Y = trt \cdot Y_1 + (1 - trt) \cdot Y_0$

$p < 0.05$?

$lm(Y \sim Trt + \ldots)$

id	y_0	τ	y_1	t_{r+}	Y
1	0	0	0	1	0
2	0	0	0	0	0
3	10	-1	9	1	9

$Y = y_1 \cdot t_{r+} + y_0 \cdot (1 - t_{r+})$



$\tau = ifelse(y_0 \neq 0, \tau, 0)$

$$Y_{t=4} = \beta_0 + \beta_1 Z + \beta_2 Y_{t=3} + \beta$$

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$$\beta_0 = Y_{t=3} = Y_{t=2} = Y_{t=1}$$

i	Y_4	$Y_3(=2,1)$	tvt
1	0	0	1
2	10	11	1
3	20	20	0