

Equations

$$A(n) + B(n) + C(n) = 1$$
$$yA(n) - xB(n) + \mathbb{E}[Y_n | -x < Y_n < y]C(n) = 0.$$

FACT

$$\lim_{n \rightarrow \infty} C(n) = 0.$$

Limits

- If we define

$$\hat{A} = \lim_{n \rightarrow \infty} A(n), \quad \hat{B} = \lim_{n \rightarrow \infty} B(n),$$

- then we have

$$\hat{A} + \hat{B} = 1,$$
$$y\hat{A} - x\hat{B} = 0.$$