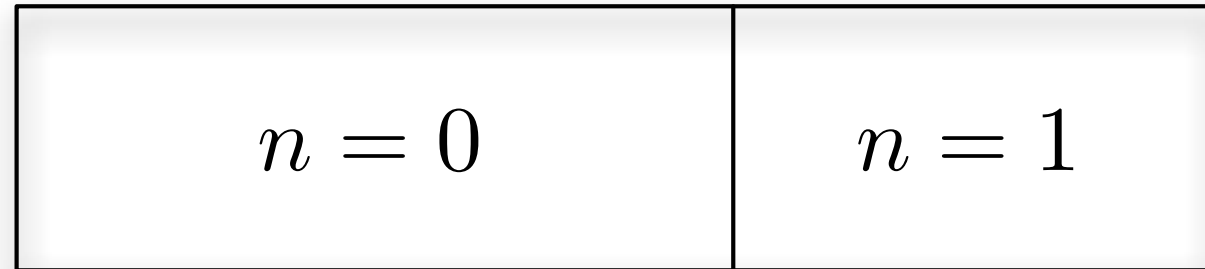


$$\min(Z^{-1}(\omega)) = 0$$

$$\max(Z^{-1}(\omega)) = 1$$



$$Z^{-1}(\omega)$$

$$n_i = \begin{cases} 0 & \text{if } \chi_i < \left(1 + e^{-\beta(\epsilon_i - \mu_i)}\right)^{-1}, \\ 1 & \text{otherwise.} \end{cases}$$

$$\langle n \rangle = 0 \cdot P(0) + 1 \cdot P(1)$$

$$= 1 \cdot (1 - P(0)) = 1 - Z^{-1}(\omega)$$

$$= \frac{(1 + e^{-\beta\omega}) - 1}{1 + e^{-\beta\omega}} = \frac{1}{e^{+\beta\omega} + 1} = f(\omega; \beta)$$

Selecting Lambda