Insiemi noti (calcolabilità)

- $K = \{x \mid \varphi_x(x)\downarrow\}$, $\mathcal{RE}$-completo, $K \not\leq \overline{K}$, $\overline{K} \notin \mathcal{RE}$
- $\overline{K} \in \text{co-}\mathcal{RE}$
- $K_0 = \{(x, y) \mid \varphi_x(y)\downarrow\}$
- $K_1 = \{x \mid \text{dom}(\varphi_x) \neq \varnothing\}$, $K_1 \in \underset{\substack{\text{coda di} \\ \text{colomba}}}{\mathcal{RE}} \setminus \underset{\text{Rice}}{\mathcal{R}}$
- $K \equiv K_0 \equiv K_1$, quindi tutti $\mathcal{RE}$-completi
- $\textsc{Tot} = \{x \mid \varphi_x \in \text{rec}\}$, $K \leq \textsc{Tot}$, $\textsc{Tot} \notin \mathcal{RE}$ perché $K \leq \textsc{Tot}$ e $K \leq \overline{\textsc{Tot}}$, quindi anche $\overline{K} \leq \textsc{Tot}$, allora se $\textsc{Tot} \in \mathcal{RE}$, $K, \overline{K} \in \mathcal{RE}$ e $K \in \mathcal{R}$ — assurdo
- $\textsc{Fin} = \{x \mid \text{dom}(\varphi_x) \text{ finito}\}$
- $\textsc{Inf} = \{x \mid \text{dom}(\varphi_x) \text{ infinito}\}$
- $\textsc{Rec} = \{x \mid \text{dom}(\varphi_x) \in \mathcal{R}\}$
- $\textsc{Cost} = \{x \mid \exists y \,.\, \forall z \,.\, \varphi_x(z) = y\}$
- $\textsc{Ext} = \{x \mid \varphi_x \text{ estendibile a funzione calcolabile totale}\}$
- $\overline{K} \leq \textsc{Tot}, \textsc{Fin}, \textsc{Inf}, \textsc{Rec}, \textsc{Cost}, \textsc{Ext}$, quindi non sono $\mathcal{RE}$