

$$\begin{aligned} \mathbb{C}_{\leq r}^o &= \frac{z \in \mathbb{C}}{z \wr o = \overline{z - o} \leq r} \\ \mathbb{C}_{< r}^o &= \frac{z \in \mathbb{C}}{z \wr o = \overline{z - o} < r} \\ U \underset{\text{off}}{\subset} \mathbb{C} &\Leftrightarrow \bigwedge_{z \in U} \bigvee_{r > 0} \mathbb{C}_{< r}^z \subset U \\ \mathbb{C}_{< R}^o &\subset \mathbb{C} \end{aligned}$$

$$z \in \mathbb{C}_{< R}^o \Rightarrow z \wr o < R \Rightarrow R - z \wr o > 0$$

$$\mathbb{C}_{< R - z \wr o}^z \subset \mathbb{C}_{< R}^o$$

$$z \in \mathbb{C}_{< R - z \wr o}^z \Rightarrow z \wr z < R - z \wr o \Rightarrow z \wr o \underset{\text{trans}}{\leq} \underbrace{z \wr z}_{< R - z \wr o} + z \wr o < R$$

$$A \underset{\text{abg}}{\subset} \mathbb{C} \Leftrightarrow \mathbb{C} \setminus A \subset \mathbb{C}$$

$$C \underset{\text{off-abg}}{\subset} \mathbb{C} \Leftrightarrow C \subset \mathbb{C} \subset C$$

$$\emptyset \subset \mathbb{C} \supset \mathbb{C} \begin{cases} U_i \subset \mathbb{C} \Rightarrow \bigcup_i U_i \subset \mathbb{C} \\ A_i \subset \mathbb{C} \Rightarrow \bigcap_i A_i \subset \mathbb{C} \end{cases} \begin{cases} U_n \subset \mathbb{C} \Rightarrow \bigcap_n U_n \subset \mathbb{C} \\ A_n \subset \mathbb{C} \Rightarrow \bigcup_n A_n \subset \mathbb{C} \end{cases}$$

$$\subset: z \in \bigcup_i U_i \Rightarrow \bigvee_{j \in I} z \in U_j \Rightarrow \bigvee_{r > 0} \mathbb{C}_r^z \subset U_j \subset \bigcup_i U_i \Rightarrow \mathbb{C}_r^z \subset U_j \subset \bigcup_i U_i$$

$$\subset: \mathbb{C} \setminus A_i \subset \mathbb{C} \Rightarrow \mathbb{C} \setminus \bigcap_i A_i = \bigcup_i \overline{\mathbb{C} \setminus A_i} \subset \mathbb{C} \Rightarrow \bigcap_i A_i \subset \mathbb{C}$$

Folg-Krit / $A \subset \mathbb{C} \Leftrightarrow \bigwedge_{\text{Folgen}} A \ni {}^n \iota \rightsquigarrow {}^\infty \iota \in \mathbb{C} \rightsquigarrow {}^\infty \iota \in A$