

$\bar{A} = Cl(A) =$  closure of  $A$ :

$$= \bigcap_{A \subset F \text{ closed}} F$$

= smallest closed set containing  $A$

$$= A \cup A'$$

$$= \{x \mid x \in U^{open} \text{ implies } U \cap A \neq \emptyset\}$$

$$= \{x \mid x \in B \in \mathcal{B} \text{ implies } B \cap A \neq \emptyset\}$$

$A^\circ = Int(A) =$  interior of  $A$ :

$$= \bigcup_{U^{open} \subset A} U$$

= largest open set contained in  $A$