

$$\text{fin sign meas } \mathbb{R} \not\vdash \mathcal{M} \text{ abz alg}$$

$$\mathbb{V}_{\bigcup_i^{\mathbb{N}} M_i} = \sum_i^{\mathbb{N}} \mathbb{V}_{M_i} \text{ abz add}$$

$$E \in \mathcal{M}: \quad \mathbb{V}_E > 0 \Rightarrow \bigvee_{E_+ \subset E} \begin{cases} \mathbb{V}_{E_+} > 0 \\ \bigwedge_M \mathbb{V}_{E_+ \cap M} \geq 0 \end{cases}$$

$$\nexists \bigwedge_{E \supset F} \mathbb{V}_F > 0 \curvearrowright \delta(F) = \bigwedge_{F \supset M \text{ meas}} \mathbb{V}_M < 0$$

$$\bigvee_{E \supset M_k \text{ disj } 0 \leq k} \mathbb{V}_{M_k} \leq \frac{1}{2} \delta \left( E \sqcup \bigcup_i^k M_i \right) < 0$$

$$k=0: \quad \mathbb{V}_E > 0 \underset{\text{Ann}}{\implies} \delta(E) < 0 \Rightarrow \bigvee_{E \supset M_0} \mathbb{V}_{M_0} \leq \frac{1}{2} \delta(E) < 0$$

$$0 \leq k-1 \curvearrowright k: \quad \text{gegeben } M_i: \quad i \leq k \Rightarrow \mathbb{V}_{E \sqcup \bigcup_i^k M_i} = \mathbb{V}_E - \sum_i^k \mathbb{V}_{M_i} \geq \mathbb{V}_E > 0$$

$$\underset{\text{Ann}}{\implies} \delta \left( E \sqcup \bigcup_i^k M_i \right) < 0 \Rightarrow \bigvee M_k \subset E \sqcup \bigcup_i^k M_i: \quad \mathbb{V}_{M_k} \leq \frac{1}{2} \delta \left( E \sqcup \bigcup_i^k M_i \right)$$

$$\sum_j^{\mathbb{N}} \mathbb{V}_{M_k} = \mathbb{V}_{\bigcup_j^{\mathbb{N}} M_k} \Rightarrow \mathbb{V}_{M_k} \rightsquigarrow 0$$

$$F = E \sqcup \bigcup_j^{\mathbb{N}} M_k \Rightarrow \mathbb{V}_F = \mathbb{V}_E - \sum_j^{\mathbb{N}} \mathbb{V}_{M_k} > \mathbb{V}_E > 0 \underset{\text{Ann}}{\implies} \delta(F) < 0$$

$$\Rightarrow \bigvee_{M \subset F} \mathbb{V}_M \leq \frac{1}{2} \delta(F) \Rightarrow \bigwedge_j^{\mathbb{N}} M \subset E \ni \bigcup_i^k M_i \Rightarrow 0 > \mathbb{V}_M \geq \delta \left( E \sqcup \bigcup_i^k M_i \right) \geq 2 \mathbb{V}_{M_k} \rightsquigarrow 0 \nmid$$

$$\bigvee_{E_+ \subset E} \begin{cases} \mathbb{V}_{E_+} > 0 \\ \delta(E_+) \geq 0 \end{cases}$$