

Why can't you define some ordered fields on  $\mathbb{C}$  using the metrics from M435? Then each metric would correspond to a different ordering relation  $\leq_1, \leq_2, \dots$  or is this done already?

Problems arise with say: Is  $0 \leq i$ ?

If so then  $i = (i-0) \in M$ . Then we want  $i^2 \in M$  i.e.  $-1 \in M$  i.e.  $-1 \geq 0$ .

Then for any  $z \in \mathbb{C}$   $-z, z \in M$

Then  $\omega(3)$  goes up the spiral, etc, etc.  
Or the other hand if  $0 \not\leq i$  then  $0 \leq -i$   
so the process starts again!