

The M_3 versus M_1 Problem

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In this talk we state and discuss a very old problem, commonly known as the M_3 versus M_1 problem. Some related thoughts in the setting of ordered topological spaces will be presented. We show that if (X, \mathcal{T}, \leq) is an ordered metrizable topological C - and I -space then the bitopological space $(X, \mathcal{T}^u, \mathcal{T}^l)$ is pairwise M_3 . [Here, $\mathcal{T}^u := \{U \in \mathcal{T} \mid U \text{ is an upper set}\}$ and $\mathcal{T}^l := \{L \in \mathcal{T} \mid L \text{ is a lower set}\}$.]