

## CONSTRUCTING COMPACTA FROM POSETS

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**Abstract:** We develop a simple method of constructing topological spaces from countable posets with finite levels, one which applies to all second-countable  $T_1$  compacta. This results in a duality amenable to building such spaces from finite building blocks, essentially an abstract analogue of classical constructions defining compacta from progressively finer open covers.

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**Key words:** posets, filters, bases, compacta, continua, Stone duality.