

# Enumerations of finite topologies associated with a finite graph

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The number of topologies and non-homeomorphic topologies on a fixed finite set are now known up to  $n=18$ ,  $n=16$  but still no complete formula yet (Sloane). There are one to one correspondence among topologies, preorder and digraphs. In this article, we enumerate topologies and non-homeomorphic topologies whose underlying graph is a given finite graph.

Comments: 2 figures

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