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Mathematics > General Topology

## Linear topologies on \$\Z\$ are not Mackey topologies

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In this article it is shown that to every non-discrete Hausdorff linear topology on Z other metrizable locally quasi-convex group topologies can be associated which are strictly finer than the linear topology and such that the character groups coincide. Applying this result to the \$p\$-adic topology on Z, we give a negative answer to the question of Dikranjan, whether this topology is Mackey.

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