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Vietoris-Rips Realization of
Indecomposable Persistence Modules of Large Dimension

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In this work we exhibit an infinite family, parametrized by dimension order d, of pairwise non-isomorphic indecomposable persistence modules over the commutative ladder quiver with length 5. We then give a family of bifiltrations of topological spaces whose H_1 persistent homologies is the infinite family of persistence modules. Moreover, for each bifiltration we provide a pair of Vietoris-Rips filtrations linked by simplicial maps that realize it homologically. Our construction provides an elementary proof of the fact that the commutative ladders with length greater than or equal to 5 are representation-infinite. We aim by this example to show that indecomposables of high dimension can be easily realized topologically and should not be ignored.