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Multiplicity of the Interval Module

Given a finite and connected poset \mathcal{P} and a pointwise finite-dimensional persistence module $M : \mathcal{P} \rightarrow \text{vect}_K$, we are interested in finding the number of copies, or the multiplicity, of the interval module in the decomposition of M into indecomposable summands. More precisely, we give necessary and sufficient conditions for a subposet to be such that the restriction of M along it preserves the multiplicity of the interval module. In addition, we characterize the minimal subposet where these conditions are satisfied.