

Property-Preserving Poset Embeddings into \mathbb{Z}^n

Trevor McGuire, North Dakota State University

The work of Dushnik and Miller in the 1940s gives us a nice way to embed posets into \mathbb{Z}^n , and the minimal value of n is now called the dimension of a poset. However, these embeddings do not preserve many desirable properties of posets. In this talk, we will examine one way in which we can modify the Dushnik-Miller embedding into a join-preserving embedding. The same technique may be used to preserve other properties, as well. We will discuss what properties the poset must have in order for this modification to work.

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