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**Lower bound on the number of meet-irreducible elements in extremal lattices.** (English)

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Summary: Extremal lattices are lattices maximal in size with respect to the number  $n$  of their join-irreducible elements with bounded Vapnik-Chervonenkis dimension  $k$ . It is natural, however, to estimate the size of a lattice also with respect to the number of its meet-irreducible elements. Although this number may differ for nonequivalent  $(n, k + 1)$ -extremal lattices, we show that each  $(n, k + 1)$ -extremal lattice has  $k$  disjoint chains of meet-irreducible elements, each of length  $n - k + 2$ .

**MSC:**

06B05 Structure theory of lattices

**Keywords:**

extremal lattices; Vapnik-Chervonenkis dimension; meet-irreducible elements

**Full Text:** [Link](#)