

**عنوان مقاله:**

The Cayley Sum Graph of Ideals of a Lattice

**محل انتشار:**

اولین کنفرانس ملی مدل سازی ریاضیات و آمار در مطالعات کاربردی (سال: 1395)

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**خلاصه مقاله:**

Let  $L$  be a lattice,  $I(L)$  be the set of ideals of  $L$  and  $S$  be a subset of  $I(L)$ . In this paper, we introduce an undirected Cayley graph of  $L$ , denoted by  $L;S$  with elements of  $I(L)$  as the vertex set and for two distinct vertices  $I$  and  $J$ ,  $I$  is adjacent to  $J$  if and only if there is an element  $k$  of  $S$  such that  $I_k = J$  or  $J_k = I$ . We study some basic properties of the graph  $L;S$  such as connectivity, girth and clique number. Moreover, we investigate the planarity, outerplanarity and ring graph of  $L;S$ .

**کلمات کلیدی:**

Lattice, Cayley graph, Ring graph, Outerplanar graph

**لینک ثابت مقاله در پایگاه سیویلیکا:**

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