

**A CONJECTURE OF KOZLOV FROM THE 1998  
PROCEEDINGS OF THE AMERICAN MATHEMATICAL SOCIETY  
NON-EVASIVE ORDER COMPLEXES AND GENERALIZATIONS OF  
NON-COMPLEMENTED LATTICES**

JONATHAN DAVID FARLEY

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ABSTRACT. Let  $P$  be a finite poset with an element  $s$  such that

- (1) for all  $x \in P$ , either  $s \vee x$  or  $s \wedge x$  exists; and
- (2) for all  $x, y \in P$  such that  $x < y$ , if  $s \wedge x$  does not exist but  $s \wedge y$  does exist, then  $(s \wedge y) \vee x$  exists.

Kozlov conjectured in the 1998 *Proceedings of the American Mathematical Society* that the order complex of  $P$  is non-evasive.

We prove this conjecture.