

**THE COMPLETELY DISTRIBUTIVE  
LATTICE OF MACHINE INVARIANT  
SETS OF INFINITE WORDS**

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**Abstract**

We investigate the lattice of machine invariant classes. This is an infinite completely distributive lattice but it is not a Boolean lattice. The length and width of it is  $c$ . We show the subword complexity and the growth function create machine invariant classes.

**Keywords:** Mealy machine, machine invariant class, completely distributive lattice, length, width.

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