# Werk

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## Kontakt/Contact

Summary.

# THE DECOMPOSITIONS OF ELEMENTS OF THE LATTICE WITH MINIMAL CONDITION

VÁCLAV HAVEL, Praha.

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In the preceding paper a symmetrical binar relation $\varrho$ between the elements of a given lattice with minimal condition is introduced. The join $a_1 \vee a_2 \vee \dots \vee a_n$ ($n > 1$) is called $\varrho$-decomposition, if $a_i \varrho (a_{k_1} \vee a_{k_2} \vee \dots \vee a_{k_j})$ holds for every $i = 1, \dots, n$ and for every choice of the various $k_1, \dots, k_j$ from $\{1, \dots, i - 1, i + 1, \dots, n\}$.

We obtain the proper decompositions for $[x \varrho y \Leftrightarrow x \, \mathrm{non} \overset{\geq}{\leqq} y]$, the direct decompositions for $[x \varrho y \Leftrightarrow x \, \mathrm{non} \overset{\geq}{\leqq} y, x \wedge y = 0]$, the strong decompositions for $[x \varrho y \Leftrightarrow x \, \mathrm{non} \overset{\geq}{\leqq} y, (x \vee p) \wedge (y \vee p) = p$ for every $p$ of a given lattice].

In the paper some general properties of the $\varrho$-decompositions and some connections between the special types of $\varrho$-decompositions are investigated.

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