

CONSTRUCTION OF A LATTICE AND A LATTICE VALUED RELATION BY CLOSURE SYSTEMS WITH APPLICATION IN DATA BASES

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The aim of this presentation is to describe a construction of a fuzzy relation arising from a collection of data, which are supposed to be its blocks. We are motivated by managing databases and these blocks have properties usually appearing in some real systems. More precisely, we start with a collection of subsets closed under intersection and we want them to be cuts of blocks of a fuzzy relation, which can further be used for managing starting data. Then we give an algorithm for the construction of a lattice L and an L -fuzzy relation, such that the cuts of its fuzzy blocks are precisely the sets of the given collection. Further, we give conditions under which the obtained relation possesses some important relational properties. Finally, we analyze application of these results in fuzzy relational databases.

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