

Topologies and Uniformities on d_0 -algebras

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Abstract

The structure of a d_0 -algebra is a generalization of a D-lattice. On such a structure, a d_0 -uniformity is a uniformity which makes the operation uniformly continuous. This generalizes the concept of D-uniformity on D-lattices as well as of Frechét–Nikodym topology on Boolean algebras.

We show that a d_0 -uniformity is univocally determined by its induced topology and precisely by the neighborhoods of 0. Moreover we describe some ways of defining a d_0 -uniformity.