

Lorena Tufan, H^* -Algebre / H^* - algebra

Abstract: This paper treats the problem of H^* -algebra. This concept was introduced and studied by Ambrose in the associative case and then the theory was extended by Lee and Jordan in non-associative case. The paper contents two paragraphs: 1) H^* -algebra with involution; 2) The construction of some H^* -algebras.

The first paragraphs starts with the definition of a H^* -algebra, goes on with some properties of it and ends with an important theorem which says that any H^* -algebra is an orthogonal sum of closed ideals.

The second paragraph contents two parts: in the first one are presented two exemples of H^* -algebra (the tensorial product of algebras and the matrix algebra). In the second one are introduced the notions of Springer H^* -algebra and structurable H^* -algebra, some of their presents and a result which says that if we have a Springer H^* -algebra we can construct a simple topological structurable H^* -algebra.

Rezumat: În această comunicare în primul paragraf voi demonstra că orice H^* -algebră este o sumă ortogonală de ideale închise, iar în al doilea paragraf voi prezenta construcția unor H^* -algebre.

Cuvinte cheie: produs scalar, topologie, ideal închis, spațiu Hilbert