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Oleg N Smirnov*, College of Charleston, Charleston, SC 29424. *Graded Lie Algebras and Kantor Pairs*. Preliminary report.

Isai Kantor studied a class of triple systems, now called Kantor triple systems, and developed the relationship of these systems with 5-graded Lie algebras. He classified finite dimensional simple Kantor triple systems over an algebraically closed field of characteristic 0.

These systems constitute one of the largest classes of nonassociative objects for which such a classification result has been obtained. The class includes Jordan triple systems as well as triple systems constructed from associative algebras, Jordan algebras, and many interesting exceptional objects.

Given a Kantor triple system one can construct a Kantor pair by doubling. So in this sense Kantor pairs are generalizations of Kantor triple systems. Moreover, pairs are more natural objects to consider from the viewpoint of graded Lie algebras.

In this talk a new version of classification theorem for simple Kantor pairs will be presented. This version is based on Zelmanov's classification of simple Lie algebras with finite grading and on our work on associative graded algebras.

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