

NATIONAL SYMPOSIUM ON MATHEMATICAL METHODS AND APPLICATIONS

22nd December 2004

Indian Institute of Technology, Madras
Chennai, TN
India

Smarandache Jordan Algebras

W.B.Vasantha Kandasamy

*Department of Mathematics
Indian Institute of Technology
Chennai – 36*

S.Christopher

*Department of Maths
Sri Ram Engg. College
Thiruvallur-602 024*

A.Victor Devadoss

*Department of Maths
Loyola College
Chennai-34*

In this paper we assume a Jordan algebra A is one which satisfies the identity $x(x^2y) = x^2(xy)$ for all $x, y \in A$. If in the Jordan algebra A , $xy = yx$ for all $x, y \in A$ we call the Jordan Algebra A to be commutative otherwise we call A a non commutative Jordan Algebra. Let $L_n(m)$ be a special class of loops. $ZL_n(m)$ is a loop algebra which is a Jordan algebra. We define Smarandache Jordan algebras (S-Jordan algebras) and Smarandache strong Jordan algebras (S-strong Jordan algebras) and prove that a S-Jordan algebra in general is not a S-strong Jordan algebra. We also prove a S-commutative Jordan Algebra is a S-weakly commutative Jordan algebra. We define a S-Jordan algebra to be S-simple Jordan algebras if the S-Jordan algebra has no S-Jordan ideals. We obtain several other interesting notions and results on S-Jordan algebras.

All Rights Reserved. This work is Copyright © W.B.Vasantha Kandasamy, S.Christopher and Victor Devadoss 2004. Mathematicians can use the above material for research purposes, but the work of the author(s) ***must*** be acknowledged. Violators of copyright, and those indulging in *plagiarism* and *intellectual theft* are liable for strict prosecution.

e-mail: vasantha@iitm.ac.in

web: www.vasanthakandasamy.org