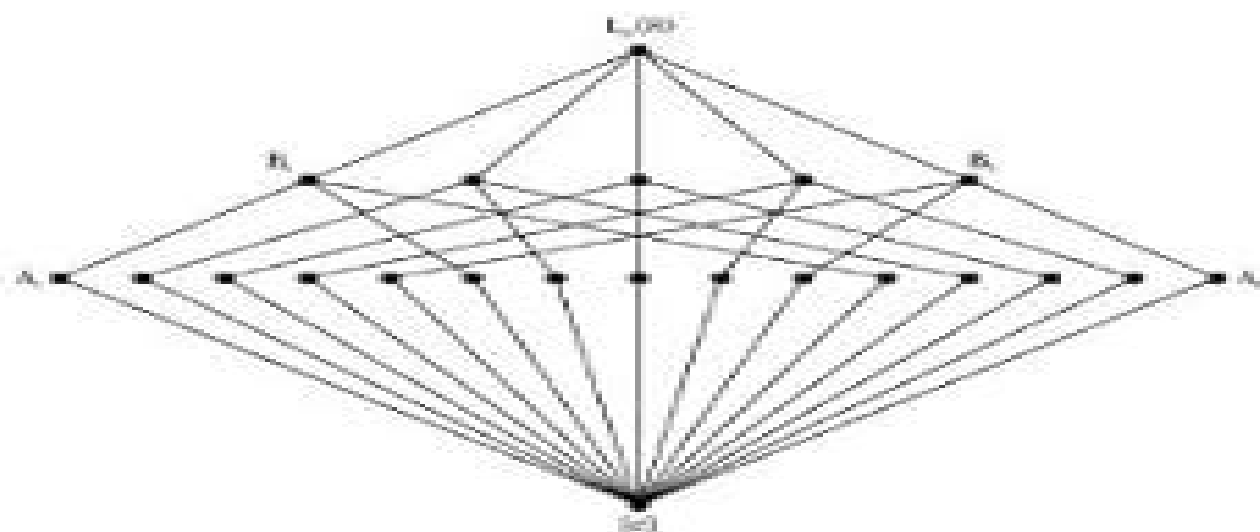


W. B. VASANTHA KANDASAMY

# SMARANDACHE LOOPS



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# Smarandache Loops

**R Barnett**



## **Smarandache Loops:**

**Smarandache Loops** W. B. Vasantha Kandasamy, 2002 Generally in any human field a Smarandache Structure on a set  $A$  means a weak structure  $W$  on  $A$  such that there exists a proper subset  $B$  which is embedded with a stronger structure  $S$  By proper subset one understands a set included in  $A$  different from the empty set from the unit element if any and from  $A$  These types of structures occur in our every day's life that's why we study them in this book As an example A non empty set  $L$  is said to form a loop if on  $L$  is defined a binary operation called product denoted by  $\cdot$  such that For all  $a, b \in L$  we have  $a \cdot b \in L$  closure property There exists an element  $e \in L$  such that  $a \cdot e = a$  for all  $a \in L$   $e$  is the identity element of  $L$  For every ordered pair  $a, b \in L$  there exists a unique pair  $x, y \in L$  such that  $ax = b$  and  $ya = b$  Whence A Smarandache Loop or S loop is a loop  $L$  such that a proper subset  $M$  of  $L$  is a subgroup with respect to the same induced operation *Scientia Magna, Vol. 2, No. 1,*

2006 Zhang Wenpeng, W. B. Vasantha Kandasamy, 2006 Collection of papers from various scientists dealing with Smarandache Notions in science Papers on holomorphic study of the Smarandache concept in loops some arithmetical properties of primitive numbers of power  $p$  Smarandache quasigroups the mean value of the Smarandache simple divisor function and other similar topics Contributors Z Xu Y Shao X Zhao X Pan T Kim C Adiga J Han Q Yang and many others

*Scientia Magna, vol. 2, no. 4, 2006* Zhang Wenpeng, Papers on Smarandache inversion sequence global attractivity of a recursive sequence Smarandache fantastic ideals of Smarandache BCI algebras translational hull of superabundant semigroups with semilattice of idempotents the Universality of some Smarandache loops of Bol Moufang type and other similar topics Contributors M Karama P Zhang W Kandasamy M Khoshnevisan K Ilanthenral M Bencze H Ibstedt W Zhu J Earls and many others **Mathematical Combinatorics, Vol. 2/2009** Linfan Mao, 2009 This volume contains a collection

of articles on smarandache notions in graph theory combinatorics **Smarandache Notions**, 2002 *Mathematical Combinatorics, Vol. 2/2008* Linfan Mao, Papers on Characterization of Symmetric Primitive Matrices with Exponent  $n^2$  Characterizations of Some Special Space like Curves in Minkowski Space time Combinatorially Riemannian Submanifolds On Smarandache Bryant Schneider Group of a Smarandache Loop and other topics Contributors Linfan Mao Bo Li Jing Wang Yuanqiu Huang Mehdi Hassani Melih Turgut Suha Yilmaz Suha Yilmaz Suur Nizamoglu A P Santhakumaran P Titus and others **Mathematical Combinatorics, Vol. 1/2008** Linfan Mao, Papers on flexibility of Embeddings of a Halin Graph on the Projective Plane curvature Equations on Combinatorial Manifolds with Applications to Theoretical Physics a Pair of Smarandachely Isotopic Quasigroups and Loops of the Same Variety and similar topics Contributors Arun S Muktibodh Han Ren Yun Bai Yuhua Fu Anjie Fushenglin Cao Guangxuan Wang and others **MATHEMATICAL COMBINATORICS (INTERNATIONAL BOOK SERIES), VOLUME 2, 2009** Linfan Mao, 2009-09-17 Papers by many authors about the

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**A Study of New Concepts in Smarandache Quasigroups and Loops** Jaiyeola Temitope Gbolahan, 2009 This monograph is a compilation of results on some new Smarandache concepts in Smarandache groupoids quasigroups and loops and it pin points the inter relationships and connections between and among the various Smarandache concepts and notions that have been developed This monograph is structured into six chapters The first chapter is an introduction to the theory quasigroups and loops with much attention paid to those quasigroup and loop concepts whose Smarandache versions are to be studied in the other chapters In chapter two the holomorphic structures of Smarandache loops of Bol Moufang type and Smarandache loops of non Bol Moufang type are studied In the third chapter the notion of parastrophe is introduced into Smarandache quasigroups and studied Chapter four studies the universality of some Smarandache loops of Bol Moufang type In chapter five the notion of Smarandache isotopism is introduced and studied in Smarandache quasigroups and loops In chapter six by introducing Smarandache special mappings in Smarandache groupoids the Smarandache Bryant Schneider group of a Smarandache loop is developed

**Scientia Magna, Vol. 4, No. 1, 2008**

Zhang Wenpeng, 2008 Proceedings of the Fourth International Conference on Number Theory and Smarandache Problems

*Mathematical Combinatorics, Vol. 3/2008* Linfan Mao, Papers on Extending Homomorphism Theorem to Multi Systems A Double Cryptography Using the Smarandache Keedwell Cross Inverse Quasigroup the Time like Curves of Constant Breadth in Minkowski 3 Space Actions of Multi groups on Finite Sets and other topics Contributors Linfan Mao Zhongfu Zhang Enqiang Zhu Baogen Xu S Arumugam I Sahul Hamid A P Santhakumaran S V Ullas Chandran M M M Jaradat M F Janem A J Alawneh and others

**Smarandache Fuzzy Algebra** W. B. Vasantha Kandasamy, 2003

**International Journal of Mathematical Combinatorics, Volume 2, 2008**

Linfan Mao, International J Mathematical Combinatorics is a fully refereed international journal which publishes original research papers and survey articles in all aspects of mathematical combinatorics Smarandache multi spaces Smarandache geometries non Euclidean geometry topology and their applications to other sciences

*The Decomposition Theorems of AG-Neutrosophic Extended Triplet Loops and Strong AG-(l, l)-Loops* Xiaoying Wu, Xiaohong Zhang, In this paper some new properties of Abel Grassmann's Neutrosophic Extended Triplet Loop AG NET Loop were further studied The following important results were proved 1 an AG NET Loop is weakly commutative if and only if it is a commutative neutrosophic extended triplet NETG 2 every AG NET Loop is the disjoint union of its maximal subgroups At the same time the new notion of Abel Grassmann's  $ll$  Loop AG  $ll$  Loop which is the Abel Grassmann's groupoid with the local left identity and local left inverse were introduced The strong AG  $ll$  Loops were systematically analyzed and the following decomposition theorem was proved every strong AG  $ll$  Loop is the disjoint union of its maximal sub AG groups

*International Journal of Mathematical Combinatorics, Volume 3, 2008* Linfan Mao, journal which publishes original

research papers and survey articles in all aspects of mathematical combinatorics Smarandache multi spaces Smarandache geometries non Euclidean geometry topology and their applications to other sciences **International Journal of Mathematical Combinatorics, Volume 2, 2009** Linfan Mao, Topics in detail to be covered are Smarandache multi spaces with applications to other sciences such as those of algebraic multi systems multi metric spaces Smarandache geometries Differential Geometry Geometry on manifolds Topological graphs Algebraic graphs Random graphs Combinatorial maps Graph and map enumeration Combinatorial designs Combinatorial enumeration Other applications of Smarandache multi space and combinatorics **Scientia Magna, Vol. 7, No. 1, 2011** Zhang Wenpeng, Papers on Smarandache isotopy of second Smarandache Bol loops dual quaternions and matrices of dual quaternions generalized Weyl's theorem for Class A operators a result about Young's inequality and several applications minimal translation lightlike hypersurfaces inequalities between the sides and angles of an acute triangle and similar topics Contributors M A Gungor M Sarduvan J Tian W He G Ilango R Marudhachalam R Poovazhaki V Swaminathan M Mohamadhasani M Haveshki A N Murugan A Nagarajan S Harmaitree U Leerawat and others *International Journal of Mathematical Combinatorics, Volume 1, 2008* Linfan Mao, International J Mathematical Combinatorics is a fully refereed international journal which publishes original research papers and survey articles in all aspects of mathematical combinatorics Smarandache multi spaces Smarandache geometries non Euclidean geometry topology and their applications to other sciences Study of Two Kinds of Quasi AG-Neutrosophic Extended Triplet Loops Xiaogang An, Mingming Chen, Abel Grassmann's groupoid and neutrosophic extended triplet loop are two important algebraic structures that describe two kinds of generalized symmetries In this paper we investigate quasi AG neutrosophic extended triplet loop which is a fusion structure of the two kinds of algebraic structures mentioned above Generalized Abel-Grassmann's Neutrosophic Extended Triplet Loop Xiaogang An, Xiaohong Zhang, Yingcang Ma, A group is an algebraic system that characterizes symmetry As a generalization of the concept of a group semigroups and various non associative groupoids can be considered as algebraic abstractions of generalized symmetry

## Decoding **Smarandache Loops**: Revealing the Captivating Potential of Verbal Expression

In a period characterized by interconnectedness and an insatiable thirst for knowledge, the captivating potential of verbal expression has emerged as a formidable force. Its capability to evoke sentiments, stimulate introspection, and incite profound transformations is genuinely awe-inspiring. Within the pages of "**Smarandache Loops**," a mesmerizing literary creation penned by a celebrated wordsmith, readers embark on an enlightening odyssey, unraveling the intricate significance of language and its enduring affect our lives. In this appraisal, we shall explore the book's central themes, evaluate its distinctive writing style, and gauge its pervasive influence on the hearts and minds of its readership.

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