

SKRIPSI

SMARANDACHE NEAR RING DAN SIFAT-SIFATNYA

SMARANDACHE NEAR RING AND ITS CHARACTERISTICS



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Diajukan untuk memenuhi salah satu syarat memperoleh derajat

Sarjana Matematika (S.Mat.)



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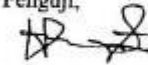
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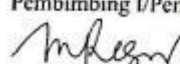
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ABSTRAK

SMARANDACHE NEAR RING DAN SIFAT - SIFATNYA

oleh

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Smarandache near-ring merupakan struktur aljabar yang berasal dari konsep Smarandache ring. *Near-ring* dan *near-field* merupakan struktur aljabar yang muncul akibat perkembangan dari struktur aljabar ring dan lapangan. *Smarandache near-ring* dibangun oleh *near-ring* dengan himpunan bagian sejatinya adalah *near-field*, sedangkan jika ditambahkan konsep *direct product* maka diperoleh struktur aljabar *Smarandache-direct product*. Penulisan tugas akhir ini menggunakan metode studi pustaka dari buku-buku dan jurnal tentang *Smarandache near-ring* dan aspek-aspek yang terkait dalam penulisan tugas akhir. Landasan teori yang digunakan dalam penulisan ini adalah himpunan dan fungsi, operasi biner, grup, dan ring. Berdasarkan analisa pustaka yang dilakukan, diperoleh kesimpulan bahwa *Smarandache-direct product near-ring* dikembangkan dari *direct product near-ring* jika paling sedikit terdapat satu anggota dari *near-ring* merupakan *Smarandache near-ring* berdasarkan definisi yang ditentukan. Jika pada *Smarandache-direct product* didefinisikan operasi penjumlahan dan pergandaan himpunan berpasangan, maka *Smarandache-direct product* adalah *Smarandache near-ring* jika memenuhi aksioma-aksioma pada *near-ring*. Hal ini tidak berlaku sebaliknya yaitu *Smarandache near-ring* adalah *Smarandache-direct product*.

Kata kunci: *Near ring, near field, direct product, Smarandache near ring, Smarandache direct product.*

ABSTRACT

SMARANDACHE NEAR RING AND ITS CHARACTERISTICS

by

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Smarandache near-ring is an algebraic structure which derived from the Smarandache ring concept. Near-ring and near-field are algebraic structures that arise due to the development of ring and field algebraic structures. Smarandache near-ring is built by the near-ring with the actual set of parts is near-field, whereas if the direct product concept is added, the structure of the Smarandache-direct product algebra is obtained. The writing of this thesis uses a literature study method of books and journals about Smarandache near-ring and related aspects in writing the final assignment. The theoretical foundation used in this paper is set and function, binary operations, groups, and rings. Based on the literature analysis, it was concluded that Smarandache-direct near-ring products were developed from near-ring direct products if at least one member of the near-ring is a Smarandache near-ring based on the defined definition. If the Smarandache-direct product is defined as the addition and multiplication operation of sets in pairs, then the Smarandache-direct product is a Smarandache near-ring if it meets the axioms in the near-ring. This does not apply otherwise, namely the Smarandache near-ring is a Smarandache-direct product.

Keyword: Near ring, near field, direct product, Smarandache near ring, Smarandache direct product.