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Dari Ideal Prima ke Ideal (m,n)-Close Delta-Primer
Aditya Yoga Sadana, Prof. Dr. Sri Wahyuni, S.U.
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INTISARI

Dari Ideal Prima ke Ideal (m,n)-Close δ-Primer

Oleh

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Ideal (m,n)-close δ-primer merupakan salah satu bentuk perumuman ideal prima yang diperkenalkan oleh Hamoda (2023) melalui penggabungan ideal (m,n)-close dan ideal δ-primer. Konsep ini menggabungkan dua arah perumuman ideal prima, yaitu pendekatan berbasis perpangkatan elemen dan pendekatan berbasis fungsi. Pada tugas akhir ini, akan dibahas kedudukan ideal (m,n)-close δ-primer dalam konteks berbagai bentuk perumuman ideal prima serta sifat-sifatnya pada ring komutatif. Hasil penelitian menunjukkan bahwa ideal (m,n)-close δ-primer mempertahankan berbagai sifat fundamental pada berbagai konstruksi dasar dalam teori ring komutatif dengan beberapa asumsi tambahan. Selain itu, diperoleh sejumlah sifat tambahan mengenai operasi-operasi pada ideal. Berbagai contoh konkret dan penyangkal juga dikonstruksi untuk memperjelas konsep serta batasan dari sifat-sifat tersebut.

Kata kunci: ideal prima, perumuman ideal prima, ideal (m,n)-close, ideal δ-primer, ideal (m,n)-close δ-primer, ring komutatif, daerah integral.

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ABSTRACT

From Prime Ideals to (m, n)-Closed δ-Primary Ideals

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Among the recent generalizations of prime ideals is the notion of (m, n)-closed δ-primary ideals, introduced by Hamoda (2023) by combining (m, n)-closed ideals and δ-primary ideals. This concept integrates two directions of prime ideal generalization, namely the element power-based approach and the function-based approach. This research discusses the position of the (m, n)-closed δ-primary ideal within the context of various forms of prime ideal generalizations and its properties in commutative rings. The results show that the (m, n)-closed δ-primary ideal preserves various fundamental properties across basic constructions in commutative ring theory under some additional assumptions. Furthermore, a number of additional properties regarding ideal operations are obtained. Various concrete examples and counterexamples are also constructed to clarify the concepts and the limitations of these properties.

Keywords: prime ideals, prime ideal generalizations, (m, n)-closed ideals, δ-primary ideals, (m, n)-closed δ-primary ideals, commutative rings, integral domains.