ABSTRACT

MSc. Thesis

SOME COMMUTATIVITY CONDITIONS OF PRIME RINGS WITH DERIVATION

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The objective of this thesis is to investigate some commutativity conditions in prime rings with derivation of characteristic not 2. As a result of examining some studies which include commutativity conditions, the thesis presents some studies investigate the relatonships between the derivation and Lie ideals. The following steps were taken as the organisation of the study. Some fundamental properties about rings have been given in Chapter I.

In chapter II., some papers that manifest the relationship between the ordinary derivation and the Lie ideal and the applications of some of them have been summarized.

Chapter III deals with the relationship between (σ, τ)-derivation and (σ, τ)-Lie ideals, under the condition that R is prime ring of characteristic not 2, σ and τ are automorphisms of R. Some studies under these conditions have been examined and also some examples have been given.