

Dominions, Closed and Absolutely Closed Semigroups

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Abstract

J. M. Howie and J. R. Isbell had shown that inverse semigroups are absolutely closed. We here provide a new, simple and direct proof of the result. We also provide a direct simple proof of the result of P. M. Higgins that showed generalized inverse semigroups are closed. Further we give a simple proof of the corollary of the later result showing that normal bands are closed. A subsemigroup U of a semigroup S is said to be closed if $\text{Dom}(U, S) = U$ while as U is absolutely closed if $\text{Dom}(U, S) = U$ for every semigroup S containing U .

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