

INTISARI

OPERATOR LINEAR PREKOMPAK DAN OPERATOR BILINEAR PREKOMPAK PADA RUANG BERNORMA ASIMETRIK

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Norma asimetrik merupakan generalisasi dari norma dengan memperlemah sifat yang dimiliki oleh norma. Pendefinisian norma asimetrik diberikan setelah ada definisi ruang pseudometrik kuasi. Berdasarkan karakteristik norma asimetrik, diberikan tiga jenis operator linear prekompak dan operator bilinear prekompak, serta diberikan hubungan antara ketiganya. Selanjutnya, diberikan pula teorema yang menunjukkan hubungan antara sifat keprekompakan operator linear dengan kekontinuan operator linear dan sifat keprekompakan operator bilinear dengan kekontinuan operator bilinear. Selain itu, dalam tulisan ini, diberikan definisi adjoint operator dari operator linear kontinu dan operator bilinear kontinu. Lebih lanjut, dalam tulisan ini akan diberikan sifat keprekompakan dari operator adjoint.

ABSTRACT

PRECOMPACT LINEAR OPERATORS AND PRECOMPACT BILINEAR OPERATORS ON ASYMMETRIC NORMED SPACES

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Asymmetric normed spaces are generalization of norm spaces by weakening the properties of norm. The definition of the asymmetric norm is given after the definition of a quasi pseudometric space. Depend on the characteristic of asymmetric norm, this thesis will provide the definition of precompact linear operator and precompact bilinear operator into three conditions, as well as the relationship between them. Then, this tesis will give a theorem about the relationship between the compactness property of a linear operator with the continuity of a linear operator and the compactness property of a bilinear operator with the continuity of a bilinear operator. In addition, in this thesis, the definition of the adjoint of continuous linear operators and continuous bilinear operators are given. Furthermore, in this thesis will be given the precompactness properties of adjoint operator.