The Completeness of p-Summable Sequences as 2-Normed Spaces

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Abstract

The norm space is the pairs of vector space with defined norm in the vector space. An example of vector space is $\ell^p$. Vector space $\ell^p$ is a space that contains all real number sequences that satisfy the sums of all elements in $\ell^p$ normed space. Furthermore at $\ell^p$ can be defined as a norm-2 $\|\cdot\|_p$, that is equal to the sum of all 2 dimensional matrix determinant in norms in $\ell^p$, such that $(\ell^p,\|\cdot\|_p)$ is a 2-normed space. Result of this study is seeking at the completeness of 2-normed space $(\ell^p,\|\cdot\|_p)$ by utilizing the completeness of norm space $(\ell^p,\|\cdot\|_p)$.

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