

SOME NEW THEOREMS IN HILBERT QUASILINEAR SPACES

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Abstract

This study is concerned with the some new theorems and definitions in Hilbert quasilinear spaces. First, we introduce minimizing vector theorem and some results in Hilbert quasilinear spaces. Next, we provide two main examples: First example is a Hilbert quasilinear space, that does not satisfy the orthogonal decomposition and second example is subset of a Hilbert quasilinear space with the orthogonal decomposition properties. Then, we have from first example that any Hilbert quasilinear space may not satisfy the orthogonal decomposition theorem of Hilbert spaces. Finally, we give some results related to above theorems provide an important contributions to the improvement of the quasilinear functional analysis.

Key words: Quasilinear space, Quasilinear inner prouct space, Quasilinear Hilbert Space, Orthogonality.

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