ABSTRACT

We can consider frame as a generalization of an orthonormal bases in arbitrary Hilbert spaces. Besides, orthonormal bases is a particular kind of frame. That is, orthonormal bases is a tight frame.

Christensen in 2003 stated that norm of every vector in Hilbert spaces is a sum of kind of inner product that vector with the elements of frame and the difference of those elements with the inverse of the frame operators. We called those last term redundancy of such a frame.

The redundancy determination of a tight frame in Hilbert space is an important problem from the application point of view, especially in signal processing. We also consider several examples to provide an illustration about this methods.

Key-words : Bases, ortornormal bases, norm, frame and redundancy.