Damir Bakić: **Frames in Hilbert C^*-modules**

Let X be a Hilbert A-module. A (possibly finite) sequence $(x_n)_n$ in X is called a *frame* for X if there exist positive constants A and B such that

$$A\langle x,x\rangle \leq \sum_{n=1}^{\infty}\langle x,x_n\rangle\langle x_n,x\rangle \leq B\langle x,x\rangle, \quad \forall x\in X. \tag{1}$$

If only the second inequality in (1) is satisfied, we say that $(x_n)_n$ is a *Bessel sequence*. The constants A and B are called *frame bounds* (resp. a *Bessel bound*). If $A=B=1$, *i.e.* if

$$\sum_{n=1}^{\infty}\langle x,x_n\rangle\langle x_n,x\rangle = \langle x,x\rangle, \quad \forall x\in X, \tag{2}$$

the sequence $(x_n)_n$ is called a *Parseval frame* for X.

We shall present some known and some new results on frames in Hilbert C^*-modules.

References

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