A NOTE ON THE TRIANGLE INEQUALITY FOR THE C*-VALUED NORM ON A HILBERT C*-MODULE

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Abstract. The C*-valued norm is defined on a Hilbert C*-module by its standard inner product. In this short note, we will prove that |x + y| ≤ |x| + |y| holds for all x, y ∈ E which is a Hilbert C*-module if and only if J = ⟨E, E⟩, the closed two-sided ideal in C*, is a commutative C*-algebra.


Keywords and phrases: C*-algebra, Hilbert C*-module, C*-valued triangle inequality.

REFERENCES