The Birkhoff–James orthogonality in Hilbert C^*-modules

(Talk)

Rajna Rajić
Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Croatia
rajna.rajic@zg.t-com.hr

(joint work with Ljiljana Arambašić)

We characterize the Birkhoff–James orthogonality for elements of a Hilbert C^*-module in terms of states of the underlying C^*-algebra. We also show that the Birkhoff–James orthogonality in a Hilbert C^*-module over a C^*-algebra $\mathcal{A}$, and orthogonality with respect to the $\mathcal{A}$-valued inner product coincide if and only if $\mathcal{A}$ is isomorphic to $\mathbb{C}$.

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