ON THE ERGODIC HILBERT TRANSFORM IN $L_2$ OVER A VON NEUMANN ALGEBRA

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Abstract: In this note a noncommutative version of Jajte’s theorem on the existence of the ergodic Hilbert transform is given. As a noncommutative counterpart of the classical almost everywhere convergence the bundle convergence of operators in a von Neumann algebra and its $L_2$-space is used.

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