HOCHSCHILD COHOMOLOGY OF TYPE II$_1$
VON NEUMANN ALGEBRAS WITH PROPERTY $\Gamma$

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Abstract. In this paper, Property $\Gamma$ for a type II$_1$ von Neumann algebra is introduced as a generalization of Murray and von Neumann's Property $\Gamma$ for a type II$_1$ factor. The main result of this paper is that if a type II$_1$ von Neumann algebra $\mathcal{M}$ with separable predual has Property $\Gamma$, then the continuous Hochschild cohomology group $H^k(\mathcal{M}, \mathcal{M})$ vanishes for every $k \geq 2$. This gives a generalization of an earlier result in [4].

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REFERENCES


