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8. Analysis

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Amenability of the second dual of hypergroup algebras

The amenability of the Banach algebra $L^1(G)$, of the measure algebra $M(G)$ and of their second duals, for a locally compact group G, have been considered by a number of authors. During these investigations it has been shown that $L^1(G)^{**}$ is amenable if and only if G is finite. If $LUC(G^*)$, the dual of the space of left uniformly continuous functions on G, is amenable, then G is compact and $M(G)$ is amenable. Finally, if $M(G)^{**}$ is amenable, then G is finite. The aim of this paper is to generalize all of the above results to locally compact hypergroups.