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70T-B214. CHARLES F. DUNKL and DONALD E. RAMIREZ, University of Virginia, Charlottesville, Virginia 22901. $L^p$ multipliers on compact groups.

For G an infinite compact group and $1 \leq p \leq 2$, let $M_p$ be the space of bounded operators on $L^p(G)$ which commute with right translation. The results of Bachelis and Gilbert [to appear] together with the results of Figà-Talamanca [Duke Math. J. 32(1965), 495-502] yield that $M_p$ is the second dual of a Banach space for $1 < p \leq 2$. Thus for $1 < p \leq 2$, $M_p \neq M(G) = M_1$; for if not, then C(G) would be a dual space and thus G would be extremally disconnected and hence finite [Rajagopalan, Acta Sci. Math.(Szeged)25(1964), 86-89]. This is one way to answer quickly a question of Hewitt and Ross ["Abstract harmonic analysis. II," Springer-Verlag, New York, 1970, p. 410]. (Received August 12, 1970.)