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Operators acting on certain Banach spaces of analytic functions. (English) Zbl 0821.47022
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Summary: Let \mathcal{X} be a reflexive Banach space of functions analytic on a plane domain Ω such that for every λ in Ω the functional of evaluation at λ is bounded. Assume further that \mathcal{X} contains the constants and M_z , multiplication by the independent variable z , is a bounded operator on \mathcal{X} . We give sufficient conditions for M_z to be reflexive. In particular, we prove that the operators M_z on $E^p(\Omega)$ and certain $H_a^p(\beta)$ are reflexive. We also prove that the algebra of multiplication operators on Bergman spaces is reflexive, giving a simpler proof of a result of Eschmeier.

MSC:

47B38 Linear operators on function spaces (general)

47L10 Algebras of operators on Banach spaces and other topological linear spaces

47A25 Spectral sets of linear operators

Cited in **5** Documents

Keywords:

Smirnov domain; bounded point evaluation; reflexive Banach space of functions analytic on a plane domain; algebra of multiplication operators on Bergman spaces is reflexive

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