

İSTANBUL ANALYSIS SEMINARS

SCHATTEN-TYPE CLASSES OF OPERATORS ON KAPLANSKY-HILBERT MODULES

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Abstract: The concept of Kaplansky–Hilbert module was introduced by I. Kaplansky in [1] under the name AW^* -module. Cyclically compact sets and operators in lattice-normed spaces were introduced by A. G. Kusraev, see [2]. In particular, a general form of cyclically compact operators in Kaplansky–Hilbert modules, which is similar to the Schmidt representation of compact operators on Hilbert spaces, as well as a variant of the Fredholm alternative for cyclically compact operators, were also given. In this talk, we will present some characterizations of cyclically compact operators and Schatten-type classes of operators on Kaplansky–Hilbert modules.

References

- [1] I. Kaplansky, “Modules over operator algebras,” *Amer. J. Math.* **75** (1953), no. 4, 839–858.
- [2] A.G. Kusraev, *Dominated Operators*, Kluwer Academic Publishers, Dordrecht, 2000.

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