

MA-619 ONE-PARAMETER SEMIGROUPS

Semigroups, generators and their basic properties, continuity conditions for semigroups, norm continuity, semigroups on dual spaces, Differentiable and analytic vectors, spectral theory, resolvents, classification of generators, Bounded and holomorphic semigroups, convergence of generators. Positive semigroups, criteria for positivity and irreducibility, point spectrum, spectral subspaces, the spectral theorems.

RECOMMENDED BOOKS:

1. E.B. Davies., One-parameter semigroups, Academic Press 1980.
2. Hille, E., and Philips, R.S., Functional analysis and semigroups, American Mathematical Society, Collected Publications, No.31, American Math. Soc.
3. Yosida, K., Functional analysis, Springer-Verlag, Berlin, New York, 1980. (Sixth Printing)