

# SPECTRAL REPRESENTATION OF LOCAL SYMMETRIC SEMIGROUPS OF OPERATORS

AMI VISELTER

ABSTRACT. A spectral integral representation is established for locally defined symmetric semigroups of operators, with indices which are not restricted to a neighborhood of zero. This extends the well-known results of Fröhlich [Unbounded, symmetric semigroups on a separable Hilbert space are essentially selfadjoint, *Adv. in Appl. Math.* 1 (1980), 237-256] and Klein and Landau [Construction of a unique selfadjoint generator for a symmetric local semigroup, *J. Funct. Anal.* 44 (1981), 121-137].

DEPARTMENT OF MATHEMATICS, BAR ILAN UNIVERSITY, 52900 RAMAT-GAN, ISRAEL

*Current address:* Department of Mathematical and Statistical Sciences, University of Alberta, Edmonton, Alberta T6G 2G1, Canada

*E-mail address:* viselter@ualberta.ca

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