

Fermionic Gaussian operators

YURI NERETIN

Gaussian operators are integral operators in $L^2(\mathbb{R}^n)$ having kernels

$$\exp\left\{\frac{1}{2}\sum a_{ij}x_ix_j + \sum b_{ij}x_iy_j + \sum c_{ij}y_iy_j\right\}$$

We consider their fermionic analogs (i.e. x_i, y_j are anticommuting variables, number of the variables can be finite or infinite). We discuss conditions of boundedness of such operators and algebraic structure of semigroup of Gaussian operators.