

## On the theory of the Kolmogorov operator in the spaces $L^p$ and $C_\infty$

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**Abstract.** We establish the basic results concerning the problem of constructing operator realizations of the formal differential expression  $\nabla \cdot a \cdot \nabla - b \cdot \nabla$  with measurable matrix  $a$  and vector field  $b$  having critical-order singularities as the generators of Markov semigroups in  $L^p$  and  $C_\infty$ .

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