

1129-35-313

Damir Kinzebulatov* (damir.kinzebulatov@mat.ulaval.ca), Pavillon Alexandre-Vachon, Bureau 2217, 1045 av. de la Médecine, Québec, Québec G1V 0A6, Canada. *$W^{1,p}$ -regularity for $-\nabla \cdot a \cdot \nabla$ and $-a \cdot \nabla^2$ perturbed by form-bounded drift, and Krylov-Safonov theory.*

We obtain $W^{1,p}$ -regularity estimates for operators $-\nabla \cdot a \cdot \nabla + b \cdot \nabla$ and $-a \cdot \nabla^2 + b \cdot \nabla$ with matrix a , vector field b having critical singularities, strengthening some aspects of the theory of Krylov-Safonov, as well as obtaining new results not reachable by their technique. Joint with Yu.A.Semenov. (Received March 19, 2017)