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# EXISTENCE OF THREE WEAK SOLUTIONS FOR A CLASS OF QUASIELLIPTIC OPERATORS CONTAINING $p(\cdot)$-LAPLACIAN AND MEAN CURVATURE OPERATOR

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**Abstract.** In this paper, we derive the existence of three weak solutions for a class of quasilinear elliptic operators containing $p(\cdot)$-Laplacian and mean curvature operator with mixed boundary conditions. More precisely, we are concerned with the problem under the Dirichlet condition on a part of the boundary and the Steklov boundary condition on an another part of the boundary. The result is already known in the case where $\inf_{x\in\Omega} p(x) \geq 2$, however we challenge us to derive the existence of three weak solution in the most general case $\inf_{x\in\Omega} p(x) > 1$. We believe that the results of this paper are novel.

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