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**Gary M. Lieberman\*** ([lieb@iastate.edu](mailto:lieb@iastate.edu)), Department of Mathematics, Iowa State University, 396 Carver Hall, Ames, IA 50011. *Boundary regularity for solutions of singular elliptic equations without boundary conditions.*

In 1951, Keldysh showed that solutions of degenerate elliptic equations, which are equivalent to the singular equation

$$u_{xx} + u_{yy} + \frac{b}{y}u_y = 0$$

with  $b \geq 1$ , have a peculiar property compared to solutions of the Laplace equation. The solutions are uniquely determined on any subdomain of the upper half-plane by their boundary data off of the  $x$ -axis. Such results can be rephrased as uniqueness of the solution in terms of an assumed regularity up to the  $x$ -axis. In this talk, we give a sketch of the corresponding results for more general elliptic equations, including some very recent results by a number of authors in a general framework. Similar results were proved in great generality by Fichera but here we present sharper estimates under appropriate hypotheses. (Received January 22, 2014)