

On the weak solutions of the degenerate Monge Ampere Equation

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We consider equations of the type $\det(\nabla^2 V) = 0$ for a function V defined in a domain of \mathbf{R}^2 , and discuss the geometry of the solutions which have $W^{2,2}$ regularity. Some relations with the Sobolev spaces of isometric immersions are discussed.