Stable Solutions Of Elliptic Partial Differential Equations Monographs And Surveys In Pure And Applied Mathematics

Stable Solutions Of Elliptic Partial Differential Equations offers a self-contained presentation of the notion of stability in elliptic partial differential equations (PDEs). The central questions of regularity and classification of stable solutions are treated at length.

We consider the class of stable solutions to semilinear equations $-\Delta u = f(u)$ in a bounded smooth domain of $\mathbb{R}^n$. The same is true for $n \leq 9$.

We prove that the partial derivative of any bounded stable solution is discontinuous at every point of discontinuity of $f$.

Abstract. In this paper we prove the L^p and L^q estimates for solutions to semilinear elliptic equations and the corresponding inequalities. We treat the cases $1 < p < \infty$ and $1 < q < \infty$.

Also, we present a complete presentation of the theory for the elliptic partial differential equations (PDEs). The central questions of regularity and classification of stable solutions are treated at length.

Stable solutions of elliptic partial differential equations are ubiquitous solutions to elliptic equations that are discontinuous at every point of discontinuity of the right-hand side function $f$.

Abstract. In this paper we prove the L^p and L^q estimates for solutions to semilinear elliptic equations and the corresponding inequalities. We treat the cases $1 < p < \infty$ and $1 < q < \infty$.

We prove that the partial derivative of any bounded stable solution is discontinuous at every point of discontinuity of $f$.