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5. Differential Geometry and Global Analysis

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Upper estimates of volume growth for minimal quasigraphs

A minimal surface M in the Euclidean space $\mathbf{R}^{n+1}$ is called *q-quasigraph* if there exists a hyperplane $\Pi \subset \mathbf{R}^{n+1}$ such that the multiplicity of the projection of M onto Π is less than an integer q. The upper estimates for such surfaces will be presented. We notice, that the established estimates are true for minimal quasigraphs with compact boundary and they essentialy improve the corresponding results due W. K. Allard and E. Giusti. The other applications to the minimal and p-minimal surfaces theory will be discussed.

Reference: Tkachev V. G. External geometry of p-minimal surfaces, *Geometry from Pac. Rim.* , Berlin – New York. de Gruyter, 1997. C. 363-376.