Ideal k-Surface

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While studying the Second row (the second degree equation) surfaces with the method of coordinates we have noticed that in the Canonical system while we were cutting the surface with parallel planes of the coordinate system we were getting a flat curve of the second row equation. However, for some surfaces we have got various types of curves (for example, for two-sheeted hyperboloid we get ellipses and hyperboles). The above mentioned curves are the same type for some of them. The ideal k-surface (k?N) is a k -row surface, which has the same type k -row curved divisions. This project search for an ideal k-surface (k?N) in case of k=3, and, if there is, determines the number of sections there can be. The analysis concluded: * An Ideal k-surface exists and is the first and second row of such a well-founded case; * Ellipsoid considered (as an ideal surface-2 one case) symmetric equations submission and accepted all the conditions for the possibility of a special case; * Hypothesis expressed in the third row of symmetric equations related to the submission of an ideal surface, conducted this hypothesis using computational methods to check for a certain interval; * It is shown that the ideal surface set and surface set presented with symmetrical equations are different- there are examples of a symmetrical equations of the surface which are not ideal and the ideal surface of the sample, where only generalized equation symmetric systems is possible.

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