Intersection curves of hypersurfaces in R4

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Abstract:

We present algorithms for computing the differential geometry properties of Frenet apparatus (t,n,b1,b2,κ1,κ2,κ3) of intersection curves of implicit-parametric-parametric and implicit-implicit-parametric hypersurfaces in R4, for transversal intersection. Some examples are given and plotted.

Keywords:

Geometric properties; Frenet frame; Frenet apparatus; Hypersurface; Surface-surface-surface intersection; Transversal intersection; Curvatures

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