A Study on Dual Lorentzian Spherical Motions

Dual Lorentzian spherical motions in dual Lorentzian space are examined. Dual Cartan matrix is obtained by examining the change of the dual Lorentzian geodesic trihedron \( \{ \hat{X}, \hat{T}, \hat{G} \} \). Then, the distribution parameters of the ruled surfaces which are determined by the dual Lorentzian geodesic trihedron in the lines space are found. Finally, the axes of curvature of the ruled surfaces generated by the dual Lorentzian geodesic trihedron in the moving and fixed spaces are obtained.