

On geometry of spatial kinematics in Lorentzian space

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In this work, we give geometric properties of mappings of spatial kinematics in Lorentzian space with the aid of dual number and split quaternion. Moreover, we get orthogonal rotation matrix A with respect to the Lorentzian Rodrigues parameters and the Lorentzian Euler parameters in such a space. Also, the mapping of spatial kinematics into points of a dual Lorentzian projective space are defined.

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