

J-trajectories in Sol_0^4

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J-trajectories are arc length parameterized curves in almost Hermitian manifold which satisfy the equation $\nabla_{\dot{\gamma}}\dot{\gamma} = qJ\dot{\gamma}$. *J*-trajectories are 4-dim analogon of 3-dim magnetic trajectories, curves which satisfy the Lorentz equation $\nabla_{\dot{\gamma}}\dot{\gamma} = q\phi\dot{\gamma}$.

In this talk *J*-trajectories in the 4-dimensional solvable Lie group Sol_0^4 are considered. Moreover, the first and the second curvature of a non-geodesic *J*-trajectory in an arbitrary 4-dimensional LCK manifold whose anti Lee field has constant length are examined. In particular, the curvatures of non-geodesic *J*-trajectories in Sol_0^4 are characterized.