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The variational principle for the uniform acceleration and quasi-spin in two dimensional space-time. (English summary)

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The author considers curves in two-dimensional pseudo-Euclidean space-time which have constant Frenet curvature. These curves are world lines of uniformly accelerated point particles and are described by a system of ordinary third-order differential equations. The action which is equal to the sum of the length of the curve and the integral of the Frenet curvature along the curve is proposed, and equations of motions are derived. Any trajectory of a uniformly accelerated point particle is shown to also satisfy these equations.

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