About One Method of Classification of a Wide Set of Trajectories

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In this report is considered wide set of "**Complicated-Displacements**" which are presented by following analytic representation

$$X(\tau,\psi,\theta,t) = T_1(t) + \cos(\theta + M(t)) \times$$
$$[\, R(\theta,t) + p(\tau,\psi,\theta,t)\cos(\, n(\theta) + g(t)\,) - q(\tau,\psi,\theta,t)\sin(n(\theta) + g(t)\,)\,]$$

$$Y(\tau,\psi,\theta,t) = T_2(t) + \sin(\theta + M(t)) \times$$
$$[\, R(\theta,t) + p(\tau,\psi,\theta,t)\cos(\, n(\theta) + g(t)\,) - q(\tau,\psi,\theta,t)\sin(n(\theta) + g(t)\,)\,]$$

$$Z(\tau,\psi,\theta,t) = T_3(t) + K(\theta,t) +$$
$$p(\tau,\psi,\theta,t)\sin(\, n(\theta) + g(t)\,) + q(\tau,\psi,\theta,t)\cos(\, n(\theta) + g(t)\,)$$

where X, Y, Z – Descartes coordinates; $\tau, \psi, \theta,$ - local coordinates; t – time arguments; T_i (i=1,2,3), M, R, K, p, q, g, n – are some "arbitrary" functions – "**Elementary Permutations**";

We try to explain "responsibility" of each elementary permutation and frames of theirs "arbitrariness". On the other hand we make analysis of two concrete mathematical models of complicated – displacement and theirs separation to the elementary permutations.