



Generalized Euler-Liouville equations

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Polar motion analysis is generally based upon symmetric linearised Euler-Liouville equations. In the first members of these equations, i.e. in the geodetic excitation, the equatorial components of the rotation pole play equivalent roles. But, in more general case, the geodetic excitation becomes asymmetric with respect to the pole coordinates. This leads to the formulation of the generalised Euler-Liouville equation, for which we derive a general solution. This introduces a new resonance at the opposite frequency of the Chandler's one. We discuss possible observational consequences.