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Possible planetary inertial interchange due to visco-elastic deformation: implication to true polar wander on Mars with Tharsis

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Secular variation of true polar wander on Mars driven by the Tharsis region as a surface mass load is calculated. The results imply that large variations such as inertial interchange true polar wander are possible through visco-elastic deformation when the parameter Q' (the normalized magnitude of the surface mass itself) is slightly smaller than 1 and the initial load colatitude is closer to 0.