

# Small perturbations on the Galilean satellites

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Today we have a precision of about ten kilometers in the observations of the galilean system. Moreover, the galileo spacecraft offers the opportunity to improve in a very strenghtening way the modelisation of this system. Hence, it may be interesting to study the influence of small perturbations which are still neglected, like the satellites'oblateness or inertial forces link with the oblateness of the central body. We used a numerical method to test the effect of such perturbations. It appears that most of the perturbations tested look more influant than what we expected, maybe because of the strong masses, volumes and  $J_2$  coefficents of the galilean satellites. Here are reporting the main results we obtained.