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# Problems related to dynamics of space structures featuring liquid propellant leaking out of spherical vessels

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*The article studies the influence of liquid propellant on dynamic characteristics of spacecraft. We present numerical solutions to the problems related to oscillations of liquid propellant leaking out of static spherical tanks into a fuel feed. We considered oscillation problems for liquid propellant leaking out under low-gravity conditions. We supply a solution to the boundary value problem for proper motions of a fuel tank rotating in reference to an arbitrary point and featuring a spherical cavity partially filled with liquid, leaking out through an intake device.*

**Keywords:** spacecraft, liquid propellant, small oscillations, perturbed motion, static tank, moving tank, spherical vessel, intake devices.

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