

**Burša, M.; Kostelecký, J.**

**Perturbations in satellite orbits due to variations in rotation of the central body.** (English)

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Summary: Variations in satellite orbital elements are derived due to perturbations in the external gravitational field of the central body caused by mass deformations of the body occurring from variations in its rotation; the central body is assumed to be perfectly elastic. General theory derived is applied to the actual Earth, as an example; possible resonances are discussed.

**MSC:**

70M20 Orbital mechanics

**Keywords:**

orbital elements; mass deformations; Earth; resonances

**Full Text:** [DOI](#)

**References:**

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