LUNISOLAR RESONANCES - OLD BUT NOT OBSOLETE.

Sławomir Breiter

Astronomical Observatory Institute, Adam Mickiewicz University, Poznań.

Resonance effects are the heart of dynamical systems studies. In satellite dynamics they are both of intellectual beauty and of practical value in the mission design. A brief account is given of how the resonances between the orbital motion of the Sun or the Moon and of an artificial satellite were first recognized in 1960s and how their understanding has evolved until present. The significance of the resonant lunisolar perturbations for the lifetime of space debris in orbit, will not let the problem disappear from the agenda of modern astrodynamics.