



On the planetary terms of the IAU2000 nutation theory

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The nutation series IAU2000A is composed of two main groups of terms of different sources, which were derived and are computed quite independently. They are usually named as lunisolar and planetary nutations. The planetary part of the nutations includes both direct effects, due to the gravitational attraction of the planets on the Earth's bulge, and indirect effects, due to the planetary perturbations of the Earth and Moon orbits. Both groups have a similar number of terms, 678 for lunisolar and 687 for planetary, but the distributions of their amplitudes are unlike. Most of the planetary terms, above 85% of the total, have amplitudes smaller than 5 micro arc seconds (μas), and 448 of the 687 terms have amplitudes below 1 μas , really small considering the current observational accuracy.

In this work we present some results derived from a deeper analysis of the planetary part of the official IAU2000 nutation series, paying special attention to their consistency with the main lunisolar part.