CONSTRUCTION OF A PLANETARY SOLUTION WITH THE HELP OF AN N-BODY PROGRAM AND ANALYTICAL COMPLEMENTS (*)

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ABSTRACT. Up to now we have been dealing with the construction of entirely analytical planetary theories such as VSOP82 (Bretagnon, 1982) and TOP82 (Simon, 1983). These theories take into account the whole of the newtonian perturbations of nine point masses: the Sun, the Earth-Moon barycenter, the planets Mercury, Venus, Mars, Jupiter, Saturn, Uranus and Neptune. They also take into account perturbations due to some minor planets, to the action of the Moon and the relativistic effects. The perturbations of these last three types are in a very simple way under analytical form but they considerably increase the computations when introduced in the numerical integration programs.

REFERENCES

Bretagnon, P., 1982, Astron. and Astrophys., 114, 278.
Simon, J-L., 1983, Astron. and Astrophys., 120, 197.

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