PRECESSION AND NUTATION FROM VLBI MEASUREMENTS

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The high correlations between the precession constant and long-term nutation amplitudes in empirical estimation from VLBI analyses have recently been decreasing rapidly as data span approached and exceeded one full 18.6-year nutation period. Direct estimates from over 1 million observation pairs of intercontinental observations spanning the years 1978 to 1996 with the JPL software Modest yield a correction to the precession constant, of -2.8 mas/yr, as well as highly significant shifts of a number of nutation amplitudes relative to the best current semiempirical nutation series. The results are in good agreement with values derived from combined VLBI/LLR analyses some years ago. They are also relatively insensitive to variations of other model components, indicating that realistic errors of the precession and nutation amplitudes may presently he at the level of 0.1 mas/yr and 0.1 mas, respectively'.