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On using Chebyshev polynomials for fitting SLR data of artificial satellites.  (English)

Summary: Chebyshev polynomials are used to fit the satellite laser ranging (SLR) data. The spline technique is given to obtain a continuous approximation function of matching these Chebyshev polynomials developed for fitting data over progressively classified separate intervals. An algorithm for the used technique as well as its application on the laser ranging data taken for the satellite Topex are given. The results followed by the discussion of the used technique are also presented.

MSC:
65D10 Numerical smoothing, curve fitting
86A30 Geodesy, mapping problems
86-08 Computational methods for problems pertaining to geophysics

Keywords:
Chebyshev polynomials; satellite laser ranging data; spline technique; fitting; algorithm; numerical examples

Full Text: DOI

References:
[10] Parker, I.B., ()

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