

## THE DIFFERENTIAL FORMULATION OF THE TAU METHOD AND ITS ERROR ESTIMATE FOR FORTH ORDER NON-OVERDETERMINED DIFFERENTIAL EQUATIONS

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## **Abstract**

In this paper, a variant of the tau methods for initial value problems in non-overdetermined fourth order ordinary differential equation is discussed. The differential formulation is considered here. The corresponding error estimate for this variant is obtained and numerical results for some selected problems are provided to illustrate the effectiveness of the method.

**Keywords and phrases:** tau method, formulation, variant, approximation, error estimate.

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