

## عنوان مقاله:

Application of Chebyshev Finite Difference Method (ChFDM) in Calculus of Variation

## محل انتشار:

دومین کنفرانس بین المللی دستاوردهای نوین پژوهشی در مکانیک، صنایع و هوافضا (سال: 1395)

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## خلاصه مقاله:

The Chebyshev finite difference method (ChFDM) is presented for solving the ordinary differential equations which arise in problems of calculus of variations. This method is regarded as a nonuniform finite difference method for mathematics and fluid mechanics problems. The method has been implemented in three different mathematical problems to show the capability of this method in different areas. The performance and accuracy of the proposed method have been compared with the exact solution of each example. Obviously, we have observed that as number of components in series increase, the accuracy will increase and thought error decrease, successively.

## کلمات کلیدی:

Chebyshev finite difference method (ChFDM), Calculus of variation, Chebyshev Gauss- Lobatto (ChGL) points

## لینک ثابت مقاله در پایگاه سیویلیکا:

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