

## عنوان مقاله:

A Numerical Method For Solving Physiology Problems By Shifted Chebyshev Operational Matrix

## محل انتشار:

مجله بین المللی ریاضیات صنعتی, دوره 10, شماره 1 (سال: 1397)

تعداد صفحات اصل مقاله: 8

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## خلاصه مقاله:

In this study, a numerical solution of singular nonlinear differential equations, stemming from biology and physiology problems, is proposed. The methodology is based on the shifted Chebyshev polynomials operational matrix of derivative and collocation. To assess the accuracy of the method, five numerical problems, such as the human head, Oxygen diffusion and Bessel differential equation, were solved. The numerical results were compared with other existed methods in tables for verification

## کلمات کلیدی:

Differential equations, Shifted Chebyshev polynomials, Operational matrix of derivative, Convergence analysis, Physiology problems

## لینک ثابت مقاله در پایگاه سیویلیکا:

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