## عنوان مقاله:

Neural Network Algorithm with Extreme LearningMachine for Pricing European Barrier Options

## محل انتشار:


دومین کنفرانس بین المللی پژوهش در حسابداری، مدیریت، اقتصاد و علوم انسانی (سال: 1402)

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## خلاصه مقاله:


The barrier option is one of the path-dependent exotic options because its price depends onthe beginning and end of the path. This option is traded more than other options becauseit is cheaper and is used to cover portfolio risk. In this study, we evaluate the Europeandouble barrier knock-out option using the Black-Scholes equation, whose interest rateparameter is a time-dependent function; because in real markets, the interest rateparameter is not necessarily fixed and may change over time. Since, non-parametricmethods perform better than parametric methods in modeling economic behavior, weuse the Legendre neural network to provide a numerical solution for double barrieroption pricing. The basis functions of hidden neurons are made from Kronecker productof two Legendre functions.


## کلمات کلیدی:


Neural network, Legendre polynomials, Barrier option, Option pricing


## لینک ثابت مقاله در پایگاه سیویلیکا: