

# The Singular Points Binomial Method for pricing American path-dependent options

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## ABSTRACT

We introduce a new numerical approach, called "Singular Points Method", for pricing path-dependent options. This method, based on a continuous representation of the price at every node of the binomial tree, allows to obtain very precise upper and lower bounds of the pure discrete binomial price reducing drastically the time of computation. The method allows also to provide a-priori estimates of the difference between an upper and a lower bound. We apply the method to the case of Asian and lookback American options.