

**CONVEXFUNCTIONS IN
THEOPTIONSARBITRAGEPRICINGTHEORYUSING BINOMIAL
MODELS**

Devanil Jaques de SOUZA¹
Lucas Monteiro CHAVES¹

- *ABSTRACT: In this work, elementary mathematical tools, based on convex functions properties, are used to derive the arbitrage price for American options. Markets are considered complete and discrete in time and stock prices are supposed to behave according to binomial models.*
- *KEYWORDS: Option; binomial model; arbitrage; derivative.*

¹ Universidade Federal de Lavras – UFLA, Departamento de Ciências Exatas, Caixa Postal 37, CEP: 37200-000. Lavras, MG, Brasil. E-mail: DevanilJaques@dex.ufla.br / lucas@dex.ufla.br