

# The smooth-fit principle of the American put price in the exponential Lévy model

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**Abstract.** In this talk, we will study the continuity of the derivative (on the underlying of the stock price) of the American put price in the exponential Lévy model, called the *smooth-fit principle*. *In the case of perpetual American option, a necessary and sufficient condition for smooth-fit was derived by Alili and Kyprianou (2004). We will give here a generalization of this result in the finite horizon case.*

**Keywords** *American option; Optimal stopping; Exponential Lévy model*