Peter Carr
New York University

Title: Static Hedging under Zero Drift CEV

Abstract:
We consider an up and in put option written on forward price whose risk neutral dynamics are described by a zero drift CEV process. We show that there exists a perfect static hedge consisting of co-terminal European calls struck above the barrier. We explicitly determine the number of calls to hold at each strike and consider an approximation of this hedge involving a single strike. Finally, we show that the same hedge also works under an unspecified independent time change.