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**ELECTRONIC COMMUNICATIONS in PROBABILITY**

## Correction to:

# OPTION PRICE WHEN THE STOCK IS A SEMIMARTINGALE[1]

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**Correction.** In Theorem 1 it was tacitly assumed that the function $F(y)$ does not depend on $S$. Consequently, equations (3) and (4) do not hold in "the most general situation" as claimed in the Introduction. However, equation (5) and the main result equation (11) in Theorem 4 do not rely on this assumption, and hold in general.

**Acknowledgement of prior work.** As far as I know the main result, equation (11), has not been published elsewhere. However, similar equations have appeared in working papers. Dupire (1996) "A unified theory of volatility" derived a similar equation by purely financial arguments. Andreasen and Carr (2002) "Put Call Reversal" give a similar equation for more general semimartingales that need not be continuous. Savine (2002) "A theory of volatility" derives a similar equation by using Schwarz distributions. The result in Corollary 5 of my paper has appeared in the working paper Andreasen and Carr (2002) ibid., who named it "Put Call Reversal".
I thank Peter Carr for bringing these remarks to my attention, and for a copy of the working paper Dupire (1996).

**Comment.** A rigorous proof of the main result, Theorem 4 equation (11) is given in my paper under the assumption that the martingale $S_t e^{-rt}$ is of class $H^1$. This condition was pointed out to me by Jia-An Yan. It does not appear in other works, which were not concerned with rigorous proofs. It is interesting to find out whether this assumption can be removed.

[1] ECP 7(2002) paper no 8.