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## Prices and Asymptotics for Discrete Variance Swaps

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## Abstract

We study the fair strike of a discrete variance swap for a general time-homogeneous stochast stochast We Care About Your Privacy

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Griessler (2012. Convex order of discrete, continuous and predictable quadratic variation and applications to options on variance. Working paper. Retrieved from http://arxiv.org/abs/1103.2310).

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## Notes


well as for all other formulas that appear in this paper.
6. ${ }^{6}$ We shall note that here $m\left(V_{t}\right)=V_{t}$ (where $m(\cdot)$ is defined in (1)) instead of, thus the process $V_{t}$ models the volatility and not the variance. In particular, in the Schöbel-Zhu model, the variance process follows.
7. ${ }^{7}$ See Proposition 6.7 for an explicit expansion.
8. ${ }^{8}$ See Definition 2.6 on p. 112 of Keller-Ressel and Muhle-Karbe (in press). 9. ${ }^{9}$ This can be easily seen from the fact that for all, , and note that here .
10. ${ }^{10}$ It reduces to studying the sign of. It is an increasing function of, so it is larger than, which is always positive because its minimum is 0 obtained when.
11. ${ }^{11}$ For the two sets of parameters above, we compute the critical interest rate as defined in Remark 2.1. Set 1: ; Set 2: , and we can see that the interest rates are both larger than. 12. ${ }^{12}$ The notation $V_{t}$ in the Schöbel-Zhu model corresponds to the square root of what is denoted by $\mathrm{V}_{\mathrm{t}}$ in the Heston model. 13. ${ }^{13}$ Note that in terms of our notation, the parameters in Hurd and Kuznetsov (2008) and our parameters have the correspondence , , .
14. ${ }^{14}$ Note that is a decreasing function in $t$, thus is sufficient for for all $\mathrm{i}=0,1, \ldots, \mathrm{n}$.
7. ${ }^{7}$ See Proposition 6.7 for an explicit expansion.
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#### Abstract

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