

Search



Home > Review of Derivatives Research > Article

Option Pricing Using Variance Gamma Markov Chains

Published: January 2002

Volume 5, pages 81–115, (2002) Cite this article



Review of Derivatives Research

Aims and scope →

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

- > Store and/or access information on a device
- Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Log in via an institution → Subscribe and save Springer+ from €37.37 /Month Starting from 10 chapters or articles per month Access and download chapters and articles from more than 300k books and 2,500 journals Cancel anytime View plans → Buy Now

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Explore related subjects

Discover the latest articles, books and news in related subjects, suggested using machine learning.

Brownian Motion Markov Process Statistical Finance Stochastic Calculus

Stochastic Analysis Stochastic Processes

References

Andersen, T. G. (1994). "Stochastic Autoregressive Volatility: A Framework for Volatility Modeling," *Mathematical Finance* 4, 75–102.

Google Scholar

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Implicit in Deutschemark Options," Review of Financial Studies 9, 69-108.

Google Scholar

Black, F., and M. Scholes. (1973). "The Pricing of Options and Corporate Liabilities," *Journal of Political Economy* 81, 637–654.

Google Scholar

Carr, P., H. Geman, D. Madan, and M. Yor. (2000). "The Fine Structure of Asset Returns: An Empirical Investigation," forthcoming in the *Journal of Business*.

Carr, P., H. Geman, D. Madan, and M. Yor. (2001). "Stochastic Volatility for Lévy Processes," Working Paper, University of Maryland.

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Duan, J. I. Popova, and P. Ritchken. (1999). "Option Pricing under Regime Switching," Working Paper, Case Western Reserve University.

Eberlein, E., U. Keller, and K. Prause. (1998). "New Insights into Smile, Mispricing and Value at Risk: The Hyperbolic Model," *Journal of Business* 71, 371–406.

Google Scholar

Elliott, Robert J., Lakhdar Aggoun, and John B. Moore. (1995). *Hidden Markov Models: Estimation and Control (Applications of Mathematics, Vol. 29*). Berlin: Springer-Verlag.

Google Scholar

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Madan, D. B., P. P. Carr, and E. C. Chang. (1998). "The Variance Gamma Process and Option Pricing," *European Finance Review* 2, 79–105.

Google Scholar

Merton, R. C. (1973). "Theory of Rational Option Pricing," *Bell Journal of Economics and Management* 4, 141–183.

Google Scholar

Merton, R. C. (1976). "Option Pricing when Underlying Stock Returns are Discontinuous," *Journal of Financial Economics* 3, 125–144

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

About this article

Cite this article

Konikov, M., Madan, D.B. Option Pricing Using Variance Gamma Markov Chains. *Review of Derivatives Research* **5**, 81–115 (2002). https://doi.org/10.1023/A:1013816400834

Issue date

January 2002

DOI

https://doi.org/10.1023/A:1013816400834

Keywords

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies

Your privacy, your choice

We use essential cookies to make sure the site can function. We, and our 92 **partners**, also use optional cookies and similar technologies for advertising, personalisation of content, usage analysis, and social media.

By accepting optional cookies, you consent to allowing us and our partners to store and access personal data on your device, such as browsing behaviour and unique identifiers. Some third parties are outside of the European Economic Area, with varying standards of data protection. See our **privacy policy** for more information on the use of your personal data. Your consent choices apply to springer.com and applicable subdomains.

You can find further information, and change your preferences via 'Manage preferences'. You can also change your preferences or withdraw consent at any time via 'Your privacy choices', found in the footer of every page.

We use cookies and similar technologies for the following purposes:

Store and/or access information on a device

Personalised advertising and content, advertising and content measurement, audience research and services development

Accept all cookies

Reject optional cookies