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Ejemplo

Numeradas por orden de aparición

Abstract— **In this letter, estimators of the Nakagami-lognormal (NL) distribution based on the method of log-moments have been thoroughly analyzed. The NL distribution has been extensively used to model composite small-scale fading and shadowing in wireless communication channels. Those estimators are calculated using straightforward equations and their performance has been evaluated in terms of the normalized mean square error (NMSE).**

I. Introduction

In mobile communications, the composite Nakagami-lognormal (NL) distribution has been extensively employed in the literature [1]–[9] to model the mixture of small-scale fading and shadowing. This distribution was initially proposed in [1] to obtain the outage probability with multiple co-channel interferers. In several other works, different performance parameters over a NL fading channel have been obtained [2]–[9]. Outage probabilities in diversity channels with matched filter in non-coherent frequency-shift keying (NCFSK) and differential phase-shift keying (DPSK) receivers over NL channels were analyzed in [2]. In [3] the average bit error rate (BER) of $\pi/4$ differential quadrature phase-shift keying ($\pi/4$-DQPSK) over NL fading was numerically evaluated. The average BER performance of digital systems was investigated in a correlated NL channel for noncoherent DPSK modulation in the presence of multiple co-channel interferers in [4]. Recently, an approximation of both the probability density function (PDF) of the signal-to-noise ratio (SNR) and the average BER in maximum ratio combining (MRC) receivers over correlated NL channels has been derived by using the two-point lossless moment generating function (MGF) in [5]. In [6] the second order statistics, i.e., the average level crossing rate (LCR) and average time fade duration (AFD), over a NL channel were evaluated numerically. The performance of adaptive modulation systems under MRC over NL channels was analyzed in [7], [8]. In [9] the average BER in RAKE receivers over NL fading was obtained.

NL distribution involves an infinite integral which needs to be approximated by for example a weighted mixture of gamma distributions using Gaussian-Hermite integration [10].

Moreover, in a measurement campaign conducted in a macrocellular urban environment [11], the NL was the best-fit distribution compared with other distributions proposed to model the composite small-scale fading and shadowing, namely the Rayleigh-lognormal [12], α-μ [13] or generalized-K [14].

The NL distribution is a tri-parametric distribution with the inherent difficulty to estimate the parameters due to the integral form of its PDF. The log-moments method has been proposed to estimate the received signal amplitude in wireless communications for different distributions, such as the Rayleigh, Nakagami-m, K and Suzuki in [15]–[17]. The results of [15], [16] show that the variance of the log-moment estimators approaches the minimal values reached by the maximum likelihood method while avoiding some of the analytical drawbacks.

In this letter, a comprehensive analysis for the NL estimators based on the log-moments method is carried out. The advantages of these estimators are the following: i) the parameters of the NL distribution are derived using direct equations from these estimators and therefore their calculation is significantly straightforward and simple; and ii) a unique solution of this set of parameters is found for the estimators given.

This letter is organized as follows: firstly, the PDF, the cumulative distribution function (CDF) and the moments of the NL distribution in both linear and logarithmic units are derived in Section II. Second, in Section III the estimators are obtained from the moments of the Nakagami-lognormal distribution in logarithmic units. Next, in Section IV we describe a procedure to generate NL random variables (RVs) and several numerical results are analyzed. Finally, the conclusions are discussed in Section V.

Mayúsculas, cursiva y abreviaturas

MAYÚSCULAS primera letra de palabras importantes (sustantivos, adjetivos, verbos y adverbios) en:

1. Título de un libro
2. Nombre de la revista o conferencia

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CURSIVA

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ABREVIATURAS

Para indicar el rango de páginas utilice “pp.” Ejemplo “pp. 111-122”
Para indicar una sola página utilice “p.” Ejemplo: “p. 111”

Las referencias deben mantener el idioma de la publicación original.

Libros

Abreviaturas de nombres

Un apellido

A. Libros

[1] R. G. Gallager. *Principles of Digital Communication.* New York: Cambridge University Press, 2008.

[2] A. Rezi and M. Allam, "Techniques in array processing by means of transformations," in *Control and Dynamic Systems*, Vol. 69, *Multidimensional Systems*, C. T. Leondes, Ed. San Diego: Academic Press, 1995, pp. 133-180.

[3] J. A Prufrock, Ed., *Lasers*, 2nd. ed. New York: McGraw-Hill, 2004.

Libro

Capítulo libro

Editor libro

Número de edición

Revistas

3 ó más autores se utiliza coma

B. Publicaciones periódicas

[4] G. Liu, K. Y. Lee, and H. F. Jordan, "TDM and TWDM de Brujin networks and sufffflenets for optical communications," *IEEE Transactions on Computers*, vol. 46, pp. 695-701, June 1997.

[5] S.-Y. Chung, "Multi-level dirty paper coding," *IEEE Communication Letters*, vol. 12, no. 6, pp. 456-458, June 2008.

Signo , antes de cerrar "

Conferencias

C. Artículos publicados en Anales de Conferencias

[6] N. Osifchin and G. Vau, "Power considerations for the modernization of telecommunications in Central and Eastern European and former Soviet Union (CEE/FSU) countries", in *Second International Telecommunications Energy Special Conference*, 1997, pp. 9-16.

"in" no va en cursiva

páginas al final

Informes técnicos y tesis

E. Reportes (reportes técnicos, reportes internos, memos)

[9] K. E. Elliot and C. M. Greene, "A local adaptive protocol", Argonne National Laboratory, Argonne, France, Tech. Rep. 916-1010-BB, 1997.

F. Tesis de Magister o Disertación Doctoral

[10] H. Zhang, "Delay-insensitive networks," M.S. thesis, University of Waterloo, Waterloo, ON, Canada, 1997.

[11] J.-C. Wu. "Rate-distortion analysis and digital transmission of nonstationary images". Ph.D. dissertation, Rutgers, the State University of New Jersey, Piscataway, NJ, USA, 1998.

Manuales y apuntes de clase

G. Manuales

[12] Bell Telephone Laboratories Technical Staff, *Transmission System for Communications*, Bell Telephone Laboratories, 1995.

H. Apuntes de clases

[13] "Signal integrity and interconnects for high-speed applications", class notes for ECE497-JS, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Winter 1997.

Internet y catálogos

J. De internet

[15] Computational, Optical, and Discharge Physics Group, University of Illinois at Urbana-Champaign, "Hybrid plasma equipment model: Inductively coupled plasma reactive ion etching reactors," December 1995. [Online]. Available: http://uigelz.ece.uiuc.edu/Projects/HPEM-ICP/index.html

K. Catálogo

[16] Catalog No. NWM-1, Microwave Components, M. W. Microwave Corp., Brooklyn, NY.

Notas de aplicación y estándares

L. Notas de aplicación

[17] Hewlett-Packard, Appl. Note 935, pp. 25-29.

M. Estándares o patentes

[18] K. Kimura and A. Lipeles, "Fuzzy Controller Component," U. S. Patent 14,860,040, December 14, 1996.

Ejemplo

REFERENCES

[1] F. Hansen and F. Meno, "Mobile fading-rayleigh and lognormal superimposed," *IEEE Trans. Veh. Technol.*, vol. 26, no. 4, pp. 332–335, Nov 1977.

[2] M. K. Simon and M.-S. Alouini, *Digital Communication over Fading Channels*, 2nd ed. Wiley-Interscience, 2005.

[3] A. Abdi, H. A. Barger, and M. Kaveh, "A simple alternative to the lognormal model of shadow fading in terrestrial and satellite channels," in *IEEE Conf. Vehicul. Tech.*, vol. 4, 2001, pp. 2058–2062.

[4] P. M. Shankar, "Error rates in generalized shadowed fading channels," *Wireless Pers. Commun.*, vol. 28, no. 3, pp. 233–238, 2004.