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Coauthors: M. Borah Department of Mathematical Sciences Tezpur University,
Napaam Tezpur-784028, Assam, India.

**A STUDY ON INFINITE DIVISIBLE GENERALIZED THREE
PARAMETER CHARLIER DISTRIBUTION**

ROUSAN ARA BEGUM

Elementary infinitely divisible distributions, which are formulated on the basis of simple models, seem to be inadequate to describe under certain situations, which may occur in a number of phenomena. In the last few years research a number of infinitely divisible distributions have been derived. Numerous new results have been obtained and entirely new applications have been found. In this paper a three parameter Charlier distribution mixing infinitely divisible distribution has been derived on the basis of a model studied by Klebanov, Maniya and Melamed (1984) and Steutel (1990), which is closed under mixing and convolution. Some recurrence relations for probabilities, moments, cumulants etc. have been investigated. Parameters are estimated by using an adhoc method. A few sets of reported data have been considered for fitting of the distribution, and the fits are compared with that of the other distributions.

Key words: Charlier polynomial and distribution, Infinite divisible distribution, Recurrence Relations, cumulants, moments.

SR. LECTURER, DEPARTMENT OF STATISTICS, DARRANG COLLEGE, TEZPUR-784001, ASSAM, INDIA.

E-mail address: rousan_06@rediffmail.com