Limited Theorems for a Number of Dense Series with Given Parameters in Outcome Sequence of Pohl Generator

Bauman Moscow State Technical University, Moscow, 105005, Russia

The work is devoted to the study of random variables related to dense runs in outcome sequence of MCV generator (Pohl generator). We derive upper bounds for distance by a variance between distribution of dense runs with given length and weight and accompanying Poisson distribution in outcome sequence of MCV generator (Pohl generator) with two switch registers. For our study we used Chen — Stein method. These results allow to prove Poisson limited theorems and as a resulted central limited theorem (as a convergence to Poisson distribution with growing parameter) for random variables.

N.M. Mezhennaya, Ph.D., Assoc. Professor of "Applied Mathematics" Department of Bauman Moscow State Technical University. e-mail: natalia.mezhennaya@gmail.com