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M Shakil\*, Department of Mathematics, Miami Dade College, Hialeah Campus, Hialeah, FL 33012, J. N. Singh, Miami Shores, Miami Shore, FL 33161, and B. M. Golam Kibria (kibriag@fiu.edu), 11200 SW 8th Street, Miami, FL 33193. On a new class of Pearsonian distributions and its properties.

This paper derives a new class of continuous probability distributions generated from the generalized Pearson differential equation. Some characteristics of the distribution are defined. It is observed that the new distribution is skewed to the right and carries most of the properties of skewed distributions. Further, the proposed distributions contains many other distributions obtained by taking the product of gamma-Rayleigh pdf, exponential-Rayleigh pdf, gamma-Rice pdf, gamma-normal, and gamma-halfnormal p.d.f.'s. It is expected that the findings of the paper will be useful for researchers in various fields. (Received August 13, 2009)