

8. Nobuhiro ASAI (Aichi University of Education)

The Boas-Buck's classical problem on generating functions

Abstract

In this talk, we shall give a quick survey on the classification of the Boas-Buck type generating functions. The type of generating functions involves many of important subfamilies, that is, the Appell, classical Meixner-Sheffer, free Meixner-Sheffer, Brenke and others. The Meixner-Sheffer families are connected to not only the classical, but also the free Gaussian, Poisson, Gamma, Pascal and Meixner distributions. Moreover, the Brenke family is related to many of nontrivial q -probability distributions represented by using q -hypergeometric functions.