Modified approach to generalized Stirling numbers via differential operators

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References:
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Abstract:
In this paper we give a modified approach to the generalized Stirling numbers of the second kind $S_r^s(n,k)$ and $S_r^s(k)$. These numbers were firstly defined by Carlitz and recently studied extensively by Blasiak, Penson and Solomon. This approach depends on the previous results obtained by Carlitz, Toscano and Cakić. We show that Blasiak’s results can be investigated from Carlitz and Cakić’s results. Some interesting combinatorial identities are obtained

Keywords:
Stirling numbers; Generalized Stirling numbers; Combinatorial identities; Normal ordering; Boson operators