

New series representation formulas for modified Bessel function of second kind of integer order**02.03** **Dragana Jankov Maširević***(Josip Juraj Strossmayer University of Osijek, Croatia)***Time:** Monday 22.07., 11:30 - 12:00, Room AM

Abstract: The main aim of this talk is to present two finite sum representation formulas for the modified Bessel function of the second kind K_n of positive integer order $n \in \mathbb{N}$: one of them including, among K_0, K_1 , the generalized hypergeometric function ${}_1F_2$ and another which includes only K_0 and the modified Bessel functions of the first kind I_0 and I_1 . Also, the obtained finite sum representations are superior with respect to the known expression in a computational efficiency examination, which will be illustrated on several examples.