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Francesco Mainardi*, pdubovski@hotmail.com. *The Wright functions of the second kind in Fractional Calculus.*

In this talk we stress the importance of the higher transcendental Wright functions of the second kind in the framework of Fractional Calculus. We first start with the analytical properties of the classical Wright functions of which we distinguish two kinds. We then justify the relevance of the Wright functions of the second kind as fundamental solutions of the time-fractional diffusion-wave equations. Indeed, we think that this approach is the most accessible point of view for describing non-Gaussian stochastic processes and the transition from sub-diffusion processes to wave propagation. Through the talk we intend to address the audience in the pathway towards the applications of the Wright functions of the second kind in Fractional Calculus (Received January 19, 2021)