

An Update on Algebraic Hypergeometric Series (Remote)

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Algebraic hypergeometric series in one variable were classified in 1989 by F. Beukers and G. Heckman, in terms of finite complex reflection groups. Recently, K. Penson observed that one of such series is a generating series of a probability density with compact support, given again by an algebraic function. Then together with N. Behr, G. Duchamp and G. Koshevoy, we found that this is a general phenomenon. The proof is an immediate application on an explicit integral by Bateman and Erdélyi. The probability density is so called Meijer's G-function, which the unique solution of the hypergeometric differential equation with the pure ramification at point 1. I will speak about it, and also on the genus zero property of the corresponding planar algebraic curve.

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