

COMPUTATIONS WITH NESTED INTEGRALS IN PARTICLE PHYSICS

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Nested integrals over rational integrands have already been considered by Kummer and Poincaré. Slightly more general integrands involving roots arise in recent computations in the context of perturbative quantum chromodynamics. We discuss symbolic methods dealing with these nested integrals occurring in generating functions, integral transforms, and convolution integrals.

Joint work with Jakob Ablinger (RISC, Austria), Johannes Blümlein (DESY, Germany) and Carsten Schneider (RISC, Austria).