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h-Positivity and Diagonal Coinvariant Spaces

We discuss the implications of positivity of coefficients for the expansion of the "universal" multigraded Hilbert series of diagonal coinvariant spaces in the h-basis (of complete homogeneous symmetric functions). This universal series is shown to afford a description that is independent of the number of sets of variables. For the special case of 3 sets of variables, we give an analog of the "shuffle conjecture" (originally formulated for 2 sets of variables), and discuss several related new combinatorial identities involving r-Dyck paths and r-parking functions.