Matrices of formal power series
associated to binomial posets

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Abstract

We introduce an operation that assigns to each binomial poset a partially ordered set for which the number of saturated chains in any interval is a function of two parameters. We develop a corresponding theory of generating functions involving noncommutative formal power series modulo the closure of a principal ideal, which may be faithfully represented by the limit of an infinite sequence of lower triangular matrix representations. The framework allows us to construct matrices of formal power series whose inverse may be easily calculated using the relation between the Möbius and zeta functions. 2000

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