Abstract

In this paper, we study two operators for composing combinatorial classes: the *ordered product* and its dual, the *colored product*. These operators have a natural interpretation in terms of *Analytic Combinatorics*, in relation with combinations of Borel and Laplace transforms. Based on these new constructions, we exhibit a set of *transfer theorems* and closure properties. We also illustrate the use of these operators to specify increasingly labeled structures tightly related to Series-Parallel constructions and concurrent processes. In particular, we provide a quantitative analysis of Fork/Join (FJ) parallel processes, a particularly expressive example of such a class.