Philippe Flajolet, Founder of Analytic Combinatorics

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Analytic combinatorics is a modern basis for the quantitative study of combinatorial structures (such as words, trees, paths, graphs...), with applications to the study of their probabilistic properties.

In his lifework *Analytic Combinatorics* (Cambridge University Press, 2009, co-authored with R. Sedgewick), Philippe Flajolet describes a general approach in enumerative combinatorics that combines two types of methods: symbolic and analytic. The symbolic side is based on the automation of recursive constructions that yield characterizations of generating functions. The analytic side treats those functions as functions in the complex plane and leads first to asymptotics estimates of the number of objects, and then to precise characterizations of limit distributions.

The emphasis is put on generic (and, if possible, automatized) methods, which allow to solve in a uniform manner a whole range of problems.