

Flajolet, Philippe; Odlyzko, Andrew

Singularity analysis of generating functions. (English) Zbl 0712.05004
SIAM J. Discrete Math. 3, No. 2, 216-240 (1990).

From the authors' abstract: "This work presents a class of methods by which one can translate, on a term-by-term basis, an asymptotic expansion of a function around a dominant singularity into a corresponding asymptotic expansion for the Taylor coefficients of the function. This approach is based on contour integration using Cauchy's formula and Hankel-like contours. It constitutes an alternative to either Darboux's method or Tauberian theorems that appears to be well suited to combinatorial enumerations, and a few applications in this area are outlined."

Reviewer: [R.C.Read](#)

MSC:

[05A15](#) Exact enumeration problems, generating functions
[40E05](#) Tauberian theorems, general

Cited in **9** Reviews
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Keywords:

asymptotic analysis; generating functions; combinatorial enumeration; Tauberian theorems

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