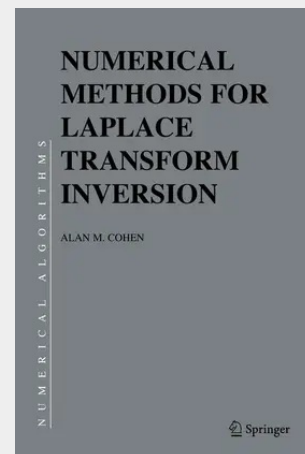


Numerical Methods for Laplace Transform Inversion

Operational methods have been used for over a century to solve problems such as ordinary and partial differential equations. When solving such problems, in many cases it is fairly easy to obtain the Laplace transform, while it is very demanding to determine the inverse Laplace transform that is the solution of a given problem. Sometimes, after some difficult contour integration, we may find that a series solution results, but this may be quite difficult to evaluate in order to get an answer at a particular time value.

The advent of computers has given an impetus to developing numerical methods for the determination of the inverse Laplace transform. This book gives background material on the theory of Laplace transforms, together with a fairly comprehensive list of methods that are available at the current time. Computer programs are included for those methods that perform consistently well on a wide range of Laplace transforms.

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