

Math Phys.

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1 Lecture 4

Shanks Transform (extrapolation)

Richardson Extrapolation

Euler Summation

Borel Summation

Generic Summation Machine

$$prop1 : \quad S(a_0 + a_1 + \cdots) = a_0 + S(a_1 + a_2 + \cdots)$$

$$prop2 : \quad S(\sum \alpha a_n + \beta b_n) = \alpha S(\sum a_n) + \beta S(\sum b_n)$$

Misc. There is a way of turning a divergent series into a convergent series (explained later).

Inside the ROC, a Taylor series is absolutely and uniformly convergent, and so order of summation doesn't matter.