



Math for the people, by the people.

## analytic continuation by power series

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Given a holomorphic function defined on some open set, one technique for analytically continuing it to a larger set is by means of power series. One picks a point of the region and constructs the Taylor series of the function about that point. If it turns out that the radius of convergence of the Taylor series is large enough that it contains points which are not in the original domain, one can extend the function to a larger domain obtained by adding these points.