Title:	The Hilbert Transform
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Abstract:	The Hilbert transform is the most important operator in analysis. There is only one singular integral in 1-D and it is Hilbert transform. The most important fact about Hilbert transform is that it is bounded on Lp for 1 < p < 1. The aim is of this thesis is to study the basic properties of the Fourier series of a function and see whether partial sums of the Fourier series of a functions converges or not and under what constraints the series converges(uniform, pointwise and in norm convergence). Later we will see how Hilbert transform plays a crucial role in Lp norm convergence of the partial sums of the Fourier series. At the end, I will try to see how the results of 1-D works in the case of double Fourier series (that is, 2-D) and the summability methods and their convergence.
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