Fast Fourier Transform:
Algorithms and Applications

Prof. Venkatesh Raman

The Institute of Mathematical Sciences, Chennai

A Fourier Transform is a specific function that converts an n-dimensional vector to another. In this talk, we will see what the transform is, an efficient algorithm to compute it and its applications for a wide variety of algorithmic problems.

Specifically, we will see applications of Fast Fourier Transform (FFT) to obtain fast algorithms for polynomial and integer multiplication, graph colouring and string-matching problems.