



Baron Jean-Baptiste Joseph de Fourier

1768-1830

Baron Jean-Baptiste Joseph de Fourier, a French mathematician and political administrator, proved that arbitrary functions can be decomposed into summations of sinusoids, which is the basic principle of many computations in imaging science.

Fourier trained for the priesthood, but his interest in mathematics prevailed. He became a teacher and was involved in politics until serving as scientific advisor to Napoleon during the invasion of Egypt, where he carried out archaeological explorations, worked to translate the Rosetta Stone, and collected French discoveries in Egypt in the *Description de l'Égypte* (1809).

After returning to France in 1801, Fourier resumed his post as Professor of Analysis at the École Polytechnique until Napoleon appointed him Prefect of Isère.

Fourier proposed the mathematical theory of heat conduction, which includes what is now known as Fourier analysis. Though very controversial at the time, this is the vital basis for analysis of convolution.