

Fourier analysis

monomial basis: $x^0 x^1 x^2 \dots x^{n-1}$

Fourier basis: ~~$\underbrace{\sin(0x)}_0$~~ ~~$\underbrace{\cos(0x)}_1$~~ $\sin(1x) \cos(1x) \sin(2x) \cos(2x)$