
Interpolation by Bivariate Polynomials

Borislav Bojanov, *Sofia, Bulgaria*

We shall discuss interpolation by bivariate algebraic polynomials based on Radon projections of the function. Hakopian's interpolation is of this kind. We construct a configuration of $N(n)$ chords $\{I_k\}$ in the disk, where $N(n)$ is the dimension of the bivariate polynomials of total degree n , which define a regular interpolation problem for every n . In other words, given the line integrals of f over the chords I_k there exists a unique polynomial of degree n which takes the same mean values over the chords.