

The problem of sk -spline interpolation

We study important generalisation of polynomial splines, the sk -splines. The space of sk -splines is the linear span of **shifts** of a single **kernel** K . If we would like to use sk -splines for the reconstruction of smooth functions using some discrete information then the problem of spline interpolation naturally arises. We shall concentrate on the problem of sk -spline interpolation with equidistant knots and points of interpolation.