THE CONVEX INTERPOLATION OF HISTOGRAM BY POLYNOMIAL SPLINES

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This paper treats the interpolation of convex histogram by strictly convex polynomial splines of arbitrary degree. First the existence theorem for strictly convex spline solving some special interpolation problem is proved using the B-spline representation. Then the general existence theorem for stricly convex splines of order k interpolating convex histogram on k-1 fold refined mesh is presented. Finally the numerical algorithm for computing such spline is shown.