Monotone Cubic Interpolation

Aresh Pourkavoos

July 1, 2022

Given a set of data points $(x_1, y_1), \ldots, (x_n, y_n)$ in which both coordinates increase moving down the list (i.e. $x_1 < \ldots < x_n$ and $y_1 < \ldots < y_n$), how can we define a function $f(x) = y$ which passes through all points and which is itself increasing (i.e. if $p < q$, then $f(p) < f(q)$)?