RICHARD FOURNIER, Dawson College and CRM (Montreal)

An interpolation formula for the derivative of a polynomial

We study an elegant interpolation formula arising from the work of Frappier, Rahman and Ruscheweyh (Trans. Amer. Math. Soc. 1985). We give a new and simple proof of that formula based on elementary properties of bound-preserving operators on classes of polynomials and we relate it to another improvement of the polynomial Bernstein inequality due to Ruscheweyh (1982, see MR0674296).