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On a conjecture for weighted interpolation using Chebyshev polynomials of the third and fourth kinds

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ABSTRACT. A conjecture for the projection norm (or Lebesgue constant) of a weighted interpolation method based on the zeros of Chebyshev polynomials of the third and fourth kinds is resolved. This conjecture was made in a paper by J. C. Mason and G. H. Elliott in 1995. The proof of the conjecture is achieved by relating the projection norm to that of a weighted interpolation method based on zeros of Chebyshev polynomials of the second kind.

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