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LOW CARDINALITY ADMISSIBLE MESHES ON QUADRANGLES, TRIANGLES AND DISKS

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Abstract. Using classical univariate polynomial inequalities (Ehlich and Zeller, 1964), we show that there exist admissible meshes with $\mathscr{O}(n^2)$ points for total degree bivariate polynomials of degree n on convex quadrangles, triangles and disks. Higher-dimensional extensions are also briefly discussed.

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