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**Supremum Norms for 2-Homogeneous Polynomials on Circle Sectors**

We consider the Banach space of two homogeneous polynomials endowed with the supremum norm  $\|\cdot\|_{D(\beta)}$  over circle sectors  $D(\beta)$  of angle  $\beta$  for several values of  $\beta \in [0, 2\pi]$ . We provide an explicit formula for  $\|\cdot\|_{D(\beta)}$ , a full description of the extreme points of the corresponding unit balls, and a parametrization and a plot of their unit spheres. This work is an extension of a series of papers on the same topic published in the last decade and it has a number of applications to obtain polynomial-type inequalities.

**Keywords:** Bernstein and Markov inequalities, unconditional constants, polarizations constants, polynomial inequalities, homogeneous polynomials, extreme points.

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