

Different convexity concepts in norms of Banach spaces

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We study several classical concepts in the topic of strict convexity of norms in infinite dimensional Banach spaces. Specifically, and in descending order of strength, we deal with Uniform Rotundity (UR), Weak Uniform Rotundity (WUR) and Uniform Rotundity in Every Direction (URED). We describe the geometrical intuition behind these concepts, and show that we may distinguish between all of these three properties in every Banach space where such renormings are possible.