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A view from above on $JN_p((R)^n$

In this talk, we discuss the John–Nirenberg space $JN_p(\mathbb{R}^n)$ from the tent-space point of view. We show how the "tent perspective" on this space leads to a natural extension of the Riesz–Markov–Kakutani representation theorem to the upper half-space \mathbb{R}^{n+1}_+ . We also demonstrate that this extension connects such representation theorems to well-known combinatorial geometric problems concerning intersection graphs of shapes and their chromatic numbers. If time permits, we will discuss an application related to the construction of functions in $JN_p(\mathbb{R}^n)$.