AN INEQUALITY ON WEIGHTED ORLICZ SPACES
FOR A VECTOR–VALUED EXTENSION OF THE
HARDY–LITTLEWOOD MAXIMAL OPERATOR ON S^n AND $P^n(\mathbb{R})$

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Abstract. Partitions of the sphere S^n and of the real projective space $P^n(\mathbb{R})$ are constructed and are applied to study inequalities on weighted Orlicz spaces for a vector-valued extension of the Hardy-Littlewood maximal operator for functions with values in an UMD Banach space.

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