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A variant of the $\Lambda(p)$-set problem in Orlicz spaces

When p>2, let S be a set of integers and consider trigonometric polynomials whose Fourier coefficients are supported on S. For various sets S, the range of p has been studied where L^p norms of trigonometric polynomials are bounded by their L^2 norms. However, in the opposite direction, we can fix p and think of a set S which satisfies the inequality $\|f\|_p \leq C\|f\|_2$ for some constant C. This set S is called a $\Lambda(p)$-set. In this talk, we will introduce $\Lambda(\Phi)$-sets which are defined in terms of Orlicz norms. And we will discuss some results about $\Lambda(\Phi)$-sets which extends known results about $\Lambda(p)$-sets.