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The general dual-polar Orlicz-Minkowski problem

In this poster, I will present the general dual-polar Orlicz-Minkowski problem, which is "polar" to the recently initiated general dual Orlicz-Minkowski problem and "dual" to the newly proposed polar Orlicz-Minkowski problem. The problem states as follows:

Under what conditions on a nonzero finite Borel measure μ defined on the unit sphere, continuous functions $\varphi : (0, \infty) \rightarrow (0, \infty)$ and $G : (0, \infty) \times S^{n-1} \rightarrow (0, \infty)$ can we find a convex body K (with the origin in its interior) solving the following optimization problems

$$\inf / \sup \left\{ \int_{S^{n-1}} \varphi(h_Q(u)) d\mu(u) : Q \in \tilde{\mathcal{B}} \right\},$$

where $\tilde{\mathcal{B}} = \{Q \in \mathcal{K}_{(o)}^n : \tilde{V}_G(Q^\circ) = \tilde{V}_G(B^n)\}$ with B^n the unit ball and \tilde{V}_G the general dual volume. In particular, we will present the existence, continuity and uniqueness of the solutions for the general dual-polar Orlicz-Minkowski problem. This poster is based on a joint work with Deping Ye and Baocheng Zhu.