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The general dual Orlicz-Minkowski problem

The classical Minkowski problem is a central problem in convex geometry which asks that given a nonzero finite Borel measure μ, what are the necessary and sufficient conditions on μ such that μ equals to the surface area measure of a convex body K.

My presentation is about the general dual extension of the classical Minkowski problem—the general dual Orlicz-Minkowski problem. That is, *for which nonzero finite Borel measures μ on S^{n-1} and continuous functions G and ψ do there exist a constant $\tau \in \mathbb{R}$ and a convex body K such that $\mu = \tau \widetilde{C}_{G,\psi}(K,\cdot)$?* Here $\widetilde{C}_{G,\psi}(K,\cdot)$ is the finite signed Borel measure. In particular, a solution to this problem will be presented. This talk is based on a joint work with Richard Gardner, Daniel Hug, Wolfgang Weil and Deping Ye.