

Valuations, distributions, and Monge-Ampère operators

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In recent years, valuations on functions arose as a natural generalization of valuations on sets, and due to their intimate relation with convex bodies, valuations on convex functions have been the focus of intense research. I will talk about a construction that allows us to interpret dually epi-translation invariant valuations on convex functions as distributions with special properties, and we will discuss how this interpretation can in turn be used to obtain strong characterization results of certain subclasses of valuations. In particular, we will focus on the information encoded in the Fourier-Laplace transform of these distributions and their relation to certain equivariant Monge-Ampère operators.