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Title: Geometric properties of capacity of convex bodies

Abstract: Capacity is a notion apparently far from convexity. It arises naturally in the theory of Sobolev spaces and in the calculus of variations; there are various equivalent definitions based on either minimum problems for integral functionals, or solutions of elliptic partial differential equations. On the other hand, capacity restricted to the class of n -dimensional convex bodies shares some peculiar properties with the n -dimensional volume. Examples are: isoperimetric inequalities, existence and uniqueness of the solution to the Minkowski problem, Brunn-Minkowski inequality. These results suggest to search for further evidences of the analogy between capacity and volume.