1015-42-243 **Galia D. Dafni*** (gdafni@mathstat.concordia.ca), Department of Mathematics and Statistics, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec H3G 1M8, Canada, and **Georgi E. Karadzhov** (geremika@yahoo.com) and **Jie Xiao**. *Carleson-type measures and capacities.* Preliminary report.

A Carleson measure μ on the upper-half-space $\mathbf{R}^{n+1}$ satisfies $\mu(T(B)) \leq C|B|$ for all balls B, where $T(B)$ is the "tent" over B over and $|B|$ is its n-dimensional Lebesgue measure. We consider classes of measures μ on $\mathbf{R}^{n+1}$ satisfying more general conditions relating $\mu(T(B))$ and $|B|$.

We compare these Carleson-type measures to classes of measures which we call "capacitary measures". These are measures μ on $\mathbf{R}^{n+1}$ for which $\mu(T(O))$, O any open set, is bounded in terms of the capacity of O. The capacities considered are those corresponding to function spaces such as Besov spaces and homogeneous and inhomogeneous Sobolev spaces, as well as Hausdorff capacity. (Received February 06, 2006)

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