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J Manfredi Juan* (manfredi@pitt.edu), Department of Mathematics, University of Pittsburgh, Pittsburgh, PA 15260, and **Peter Lindqvist**, Norwegian University of Science and Tech., Department of Mathematical Sciences, N-7491 Trondheim, Norway. *Riesz potentials that are p -superharmonic or p -subharmonic functions.*

We will discuss a class of Riesz potentials that are either p -superharmonic or p -subharmonic, depending on the value of p . In the cone of p -superharmonic (or p -subharmonic) functions there is distinguished convex cone formed by Riesz potentials. The case $p = \infty$ is included. These results extend the work of Crandall and Zhang, who proved a superposition principle of this type for finite linear combinations of fundamental solutions. (Received August 29, 2006)