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Al Boggess* (boggess@math.tamu.edu), Mathematics Department, Texas A&M University, College Station, TX 77843, and **Andy Raich**, Mathematics Department, University of Arkansas, Fayetteville, AR. *New Formulas for the Fundamental Solution to \square_b on Certain Quadrics*. Preliminary report.

In 2003, M. Peloso and F. Ricci gave necessary and sufficient conditions for the solvability of \square_b on $(0,q)$ forms for quadric surfaces in C^n of any codimension. Where solvability is possible, they also gave a formula for the group transform of the fundamental solution in terms of a Hermite expansion. In joint work with Andy Raich, we can evaluate a closed form expression for the fundamental solution to \square_b for certain types of quadrics. In particular, for hypersurface quadrics, these formulas exhibit the dependence of the fundamental solution on the relative sizes of the absolute values of the eigenvalues of the Levi form. (Received February 14, 2011)