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Aprillya Lanz* (alanz@clayton.edu), 2000 Clayton State Blvd., Morrow, GA 30260, and
Jeffrey Ehme (jehme@spelman.edu), Box 214, Spelman College, Atlant, GA 30314. *Uniqueness
and Existence for Unbounded Boundary Value Problems.*

We consider the differential equation

$$y^{(n)} = f(t, y', \dots, y^{(n-1)})$$

subject to the boundary conditions

$$L_i(y) = y_i,$$

where $L_i : C^{(n-1)}([a, b], \mathbb{R}) \rightarrow \mathbb{R}$ are continuous linear functionals. Without assuming that f is bounded, we establish the uniqueness and existence of solutions of the mentioned problem. This result generalizes boundary value problems with boundary conditions such as conjugate, focal or right-focal, and Lidstone. (Received September 26, 2006)