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Rod Freed* (rfreed@uci.edu), 25832 Empresa, Mission Viejo, CA 92691. *Solving Integral Equations When the Kernel is Unknown.*

When solving integral equations we use a known kernel, $k(x, t)$, and a known forcing function, $f(x)$, to solve for $g(x)$. In many applications $k(x, t)$ and $f(x)$ are unknown. We show that an approximate solution can be obtained in this case, so long as we have observations on x . The approximation converges almost everywhere to the true solution as the number of observations increases (Received March 09, 2008)