1000-35-69   **Atanas Stefanov*** (`stefanov@math.ku.edu`), Department of Mathematics, 405 Snow Hall, 1460 Jayhawk Blvd, Lawrence, KS 66045, and **Panos Kevrekidis**. *Decay and Strichartz estimates for the discrete Schrödinger and Klein-Gordon equations.*

We show decay estimates for the propagator of the discrete Schrödinger and Klein-Gordon equations in the form $\|U(t)f\|_{l^\infty} \leq C(1 + |t|)^{-d/3}\|f\|_{l^1}$. This implies a corresponding (restricted) set of Strichartz estimates. Applications of the latter include the existence of excitation thresholds for certain regimes of the parameters and the decay of small initial data for relevant l^p norms. (Received August 13, 2004)