1070-11-313 **Andrew Knightly***, Department of Mathematics & Statistics, 5752 Neville Hall, Rm 333, University of Maine, Orono, ME 04469-5752, and **Charles Li**, Chinese University of Hong Kong, Hong Kong. *Newforms of cubic level.*

We produce a new vector in the simple supercuspidal representations of $\mathrm{GL}_n(\mathbf{Q}_p)$ constructed by Gross and Reeder, and compute the associated matrix coefficient when $n = 2$. This allows us to spectrally isolate newforms of level N^3, where N is square-free. Applications include a simple Kuznetsov formula and an exact expression for a weighted average of Maass newform L-values. (Received February 15, 2011)