1002-46-212 **Stephen J. Dilworth*** (dilworth@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208, and **Denka Kutzarova** (denka@math.uiuc.edu) and **Karen Shuman** (shumank@math.grinnell.edu). *Convergence of a greedy algorithm in Bergman spaces.* Preliminary report.

We study the convergence of a greedy algorithm in a Banach space equipped with a dictionary. We show convergence for a large class of dictionaries in dual Banach spaces with a Gateaux differentiable norm and with the weak-star Kadec-Klee property. As an application we obtain convergence for Bergman spaces on the ball or polydisk for the dictionary of analytic monomials. (Received September 14, 2004)