1016-13-325   **Giulio Caviglia*** (`caviglia@math.berkeley.edu`), University of California at Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840, and **Manoj Kummini**. *Some Ideals with Large Projective Dimension.*

For an ideal I in a polynomial ring over a field, a monomial support of I is the set of monomials that appear as terms in a set of minimal generators of I. Craig Huneke asked whether the size of a monomial support is a bound for the projective dimension of the ideal. We construct a class of examples to show that, if the number of variables and the degrees of the generators are unspecified, the projective dimension of I grows at least exponentially with the size of its monomial support. The ideals we construct are generated by monomials and binomials. (Received February 14, 2006)

1