1037-17-153 **Apoorva Khare*** (apoorva@math.ucr.edu). *Decomposing representations of wreath products of semisimple Lie algebras.*

Let R be the wreath product of $U(\mathfrak{g})$ with S_n, for some n and some complex semisimple Lie algebra $\mathfrak{g}$. We first classify all finite-dimensional R-modules. Next, we compute the center of R, and classify all central characters on these modules (and others). The common theme here is an analogue of the BGG Category $\mathcal{O}$ for R (and a far larger class of smash product algebras); we prove that this is a highest weight category, with block decomposition and (a modified form of) BGG Reciprocity. (Received January 31, 2008)