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James E. Humphreys*, Dept. of Mathematics & Statistics, U. Massachusetts, 710 N. Pleasant St., Amherst, MA 01003-9305. *Tilting modules for semisimple groups in characteristic p* . Preliminary report.

Tilting modules in the BGG category \mathcal{O} for a semisimple Lie algebra were studied by Collingwood–Irving in the guise of self-dual modules with a filtration having Verma modules as quotients. The construction using wall-crossing functors yields a duality (involving the longest element in the Weyl group) with the filtration behavior of projectives in \mathcal{O} . Recently V. Mazorchuk has shown that the tilting modules can also be filtered by shuffled versions of Verma modules. We look at some possible parallels in the Ringel–Donkin theory of tilting modules for a semisimple algebraic group in characteristic p . (Received February 14, 2006)