1017-20-185 **J. Matthew Douglass*** (`douglass@unt.edu`), Department of Mathematics, University of North Texas, PO Box 311430, Denton, TX 76203-1430. *Alvis-Curtis duality for admissible complexes.* Preliminary report.

Suppose $\mathfrak{g}$ is the Lie algebra of a connected, reductive algebraic group G. We will define a functor, $\mathcal{D}$, from the category of bounded, constructible, G-equivariant, $\mathbb{Q}_l$-sheaves on $\mathfrak{g}$ to itself. This functor has the following properties:

- If A is an admissible complex on $\mathfrak{g}$, then so is $\mathcal{D}(A)$.
- If G is defined over an algebraic closure of a finite field, F is a Frobenius map, and A is an F-equivariant complex, then the characteristic function of $\mathcal{D}(A)$ is the Fourier transform of the characteristic function of A.
- $\mathcal{D}$ commutes with the Deligne-Fourier transform.

The same construction applies to bounded, constructible, G-equivariant, $\mathbb{Q}_l$-sheaves on G and the first two statements above are true in this context. (Received February 20, 2006)