1110-16-348 **Ragnar Buchweitz**, **Eleonore Faber** and **Colin Ingalls***, cingalls@unb.ca. *Noncommutative resolutions of discriminants of reflection groups.* Preliminary report.

Let W be subgroup of $\mathrm{GL}(V)$ generated by reflections. Let $S = k[V]$ be the polynomial ring and let $z \in S$ cut out the hyperplane arrangement of mirrors in V. The discriminant is the image of the hyperplane arrangement in the quotient V/W which is cut out by z^2. Let A be the skew group algebra $W \rtimes k[V]$. Let e be the idempotent of kG corresponding to the trivial representation. Our main result is that

$$\mathrm{End}_{S^W}(S/zS) = A/AeA$$

forms a noncommutative resolution of the discriminant since it is Koszul, has global dimension $\mathrm{dimV} - 1$, and its centre $S^W/(z^2)$ is polynomial functions on the discriminant. (Received February 24, 2015)