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Iain Gordon and **Stephen Griffeth*** (S.Griffeth@ed.ac.uk), Edinburgh, Scotland. *Catalan numbers and diagonal coinvariant rings for complex reflection groups.*

For real reflection groups, work of Berest-Etingof-Ginzburg and Gordon connects the representation theory of rational Cherednik algebras to diagonal coinvariant rings and q,t -Catalan numbers. We will explain how to extend this to complex reflection groups by using results of Opdam and Rouquier on the relationship between finite Hecke algebras and rational Cherednik algebras of complex reflection groups. This is joint work with Iain Gordon. (Received January 11, 2010)