On the structure of the category O for cyclotomic rational Cherednik algebras

This a joint work in progress with Iain Gordon. We study the structure of the category O for rational Cherednik algebras associated to the groups $G(l, 1, n)$ under certain restrictions on parameters. The parameters we mostly consider are kind of "integral, regular, of finite type"(for specialists: the latter means "irrational k"). We relate the Cherednik categories O to parabolic categories O for finite type A. Using this we can recover the multiplicities in the Cherednik category O. Also we can classify finite dimensional irreducible modules.