Literature

I Dunkl operators for complex reflection groups

(joint with C. Dunkl; Proc. LMS (3) 86 (2003))

II Category $\mathcal{O}$ for rational Cherednik algebras

(joint with Ginzburg, Guay & Rouquier; Inv. Math ... (2003))

{ I gives a natural construction of the rational Cherednik algebra.
II gives the natural context for the main problem that arises as a result of the construction in I }

III Quasi-invariants of complex reflection groups

(unpublished preprint (to appear) of Yuri Berest & Oleg Chalykh)

PLANNING

1) Dunkl representation of the Cherednik algebra
(Dunkl operators, Dunkl pairing, Singular parameters, shift operators, Spherical algebra)

2) KZ-functor (localization, monodromy Hecke algebra, duality, main results KZ-functor, decomposition numbers)

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3) Quasi-invariants (differential operators on quasi-invariants, symmetries spherical algebras, existence shift operators

4) KZ-twist & category $\mathcal{O}$ (Fake degrees)