

## Satake's good basic invariants for finite complex reflection groups

*Monday 6 October 2025 14:00 (1 hour)*

In 1980, Saito, Sekiguchi and Yano found “flat generator system” on the orbit spaces of irreducible finite Coxeter Groups. Their construction can be understood in the framework of the almost duality of Frobenius manifolds proposed by Dubrovin.

In late 2010', the story was extended to well-generated finite complex reflection groups by Arsie- Lorenzoni, Kato-Mano-Sekiguchi, and Konishi-Minabe-Shiraishi.

In 2019, in a conference held at Kyoto University, Satake proposed the notion of good basic invariants for finite complex reflection groups and showed that good basic invariants are flat for finite Coxeter groups. I think that Satake's definition, given in terms of regular elements, opened a new perspective. In the joint work with S. Minabe, we showed that good basic invariants are flat and found that taking a reflection subquotient which preserves the largest degree induces good basic invariants on the reflection subquotient. In this talk, I will explain these results.

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