



Representation Theory Seminar

Pro- p metaplectic Hecke algebras and quantum wreath products

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Abstract

We realize the pro- p Hecke algebra for the n -th metaplectic cover of the p -adic group $GL_d(F)$ as a skew polynomial quantum wreath product. Our work provides an explicit algebraic approach that comes with a natural theory regarding the corresponding Schur duality, and also recover the following results, for type A:

- (1) The Kashiwara-Miwa-Stern tensor space over the affine Hecke algebra,
- (2) The realization of Vigneras' pro- p Hecke algebra as the affine Yokonuma Hecke algebra,
- (3) The identification of Gelfand-Graev representation for the pro- p metaplectic Hecke algebras due to Gao, Gurevich and Karasiewicz

This is a joint work with Valentin Buciumas (PoSTech).

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| Date: February 6, 2026 (Friday) |
| Time: 3:00 pm – 4:00 pm |
| Venue: Room 210, Run Run Shaw Building, HKU |