

# Mixed perverse sheaves on flag varieties of Coxeter groups

Cristian VAY (National University of Córdoba, Argentina)

vay@famaf.unc.edu.ar

We construct an abelian category of "mixed perverse sheaves" attached to any realization of a Coxeter group, in terms of the associated Elias-Williamson diagrammatic category. This construction extends previous work of Achar and Riche, where they worked with parity complexes instead of diagrams, and we extend most of the properties known in this case to the general setting. As an application we prove that the split Grothendieck group of the Elias-Williamson diagrammatic category is isomorphic to the corresponding Hecke algebra, for any choice of realization.

This talk is based on a joint work with Pramod Achar and Simon Riche [Canad. J. Math. (2018), <https://doi.org/10.4153/CJM-2018-034-0>].