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Michel Broué, Université de Paris VII (visiting MSRI)

Speculations about Spetses

Many features of the group GL_n over a field with q elements, including its Sylow theory, character values, and modular representation theory, suggest that the group can be viewed as the specialization for $x=q$ of a mysterious object, the corresponding `Spets'. The same applies to other reductive groups. Moreover, while the Weyl group of an actual reductive group must be a reflection group over **Q**, other reflection groups over the complex numbers apparently give rise to new Spetses. We shall present some evidence for these speculations.