OBERWOLFACH SEMINAR: "CHARACTER FORMULAS FOR REDUCTIVE ALGEBRAIC GROUPS"

Dates:
Nov. 18-24, 2018

Organizers:
P. Achar, Louisiana State University
S. Riche, Université Clermont Auvergne
L. Rider, University of Georgia

Programme:
This seminar will be an introduction to modern representation theory of reductive algebraic groups over fields of positive characteristic, mainly from the geometric point of view.

In particular, we will introduce the p-canonical basis of Hecke algebras (after Williamson) and emphasize its use in the study of character formulas for simple representations and indecomposable tilting modules.

Introductory reading:
J. C. Jantzen, *Representations of algebraic groups, second edition*, Amer. Math. Soc., 2003.

L. T. Jensen, G. Williamson, *The p-canonical basis for Hecke algebras*, in *Categorification and higher representation theory*, 333–361, Contemp. Math. 683, Amer. Math. Soc., Providence, RI, 2017.

G. Williamson, *Algebraic representations and constructible sheaves*, Jpn. J. Math. **12** (2017), no. 2, 211–259.