P. Fong. Brauer-Lusztig Blocks and Character Counts in Finite Reductive Groups.

The Brauer theory of blocks and the Lusztig theory of characters of finite reductive groups have a miraculous fit when the prime for the block theory differs from the underlying prime for the reductive group. In particular, the fit offers an alternate setting for the Dade-Uno conjectures and hence the related character count conjectures of McKay, Alperin, Isaacs, and Navarro for unipotent blocks of such groups. Some implications of this fit will be presented in the talk.