The $p$-length of a $p$-solvable group and its character table

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A question in the theory of finite $p$-solvable groups is to determine a bound for their $p$-lengths. In several papers, it is shown that this bound can be read on the character table.

For a character $\chi$ of $G$, the number $\chi^c(1) = \frac{|G:\ker\chi|}{\chi(1)}$ is called the co-degree of $\chi$.

In this talk, we obtain a bound of the $p$-length of a $p$-solvable group by considering the co-degrees of its irreducible characters.