CHRISTIAN MAIRE, Université de Franche-Comté (Besançon)

On the linear growth of the $p$-rank of the Class Group: the pro-$p$ groups point of view.

This is a joint work with Farhid Hajir. Genus theory may produce some situations where the $p$-rank of the $p$-class group grows linearly with the degree. In this talk, thanks to an idea of Ershov and a result of Schmidt, we explain this phenomena by using the description by generators and relations of a certain pro-$p$ Galois group.