

MAXIMAL PRO- p GALOIS GROUPS

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Abstract:

Given a pro- p group G , let $\Phi(G)$ be the Frattini subgroup of G . We call a pro- p group G Frattini-resistant if for all finitely generated subgroups H and K of G , $\Phi(H) \leq \Phi(K)$ implies $H \leq K$. I will talk about Frattini-resistant pro- p groups and their relation with maximal pro- p Galois groups. Moreover, I will discuss the following question: for which simplicial graphs the pro- p completion of the corresponding right-angled Artin group occurs as the maximal pro- p Galois group of some field containing a primitive p th root of unity? This talk is based on joint work with Slobodan Tanushevski and joint work with Pavel Zalesski.