

# Deforming pro-p groups

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## Abstract

It is a classical result due to Zassenhaus and Jennings, that every pro-p group  $G$  defines a restricted (1-generated)  $N_0$ -graded  $F_p$ -Lie algebra  $gr_\bullet(G)$ . For such a restricted  $F_p$ -Lie algebra  $L_\bullet$ , one defines the genus of  $L_\bullet$  as the set of isomorphism classes of pro-p groups  $[G]$  satisfying  $gr_\bullet(G) \simeq L_\bullet$ . Therefore, one may interpret  $gen(G) = gen(gr_\bullet(G))$  as the set of canonical deformations of the pro-p group  $G$ . We will discuss some recent results and open problems concerning the genus.