

# Brauer's generalized decomposition numbers and universal deformation rings

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The versal deformation ring  $R(G,V)$  of a mod  $p$  representation  $V$  of a profinite group  $G$  encodes all isomorphism classes of lifts of  $V$  to representations of  $G$  over complete local commutative Noetherian rings. We introduce a new technique for determining  $R(G,V)$  when  $G$  is finite which involves Brauer's generalized decomposition numbers.

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