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**Michael R. Bush\*** ([bush@math.umass.edu](mailto:bush@math.umass.edu)), Dept. of Mathematics & Statistics, University of Massachusetts, Amherst, MA 01003-9305, and **John Labute** ([labute@math.mcgill.ca](mailto:labute@math.mcgill.ca)), Dept. of Mathematics & Statistics, McGill University, Montreal, QC H3A 2K6, Canada. *Mild pro- $p$  groups and  $p$ -extensions with restricted ramification.*

In recent work Labute has introduced the notion of a mild pro- $p$  group. These groups have many nice properties and are of interest in number theory because they often arise as the Galois groups of maximal  $p$ -extensions of  $\mathbb{Q}$  with ramification restricted to a finite set of primes  $S$ . I will describe some work in which we attempt to characterize those extensions of  $\mathbb{Q}$  which are mild when  $|S|$  is small. (Received February 16, 2006)