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Brian Nakamura*, bnaka@math.rutgers.edu, and **Doron Zeilberger**. *Counting permutations with exactly r occurrences of a pattern.*

We will consider the problem of enumerating permutations that contain exactly r occurrences of a specified pattern. Previous work by Noonan and Zeilberger considered this problem for a few different patterns (such as the pattern 123) and gave a concrete method of enumeration for $r \leq 2$. We will discuss a modification to their approach that allows us to enumerate such permutations for more patterns as well as for larger r values. (Received September 25, 2012)