1017-22-173   **Peter S. Campbell** (`Peter.Campbell@bristol.ac.uk`) and **Monica Nevins***
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King Edward Ave., Ottawa, ON K1N 6N5, Canada. *Branching Rules for Unramified Principal
Series Representations of p-adic* GL(3). Preliminary report.

We consider the restriction of the unramified principal series representation of $GL(3, k)$, for k a p-adic field of residual
characteristic greater than 3, to the maximal compact subgroup $GL(3, R)$, where R denotes the integer ring. We give a
decomposition of this representation into individually induced representations of smaller subgroups, as a first approxima-
tion to a decomposition into irreducibles. A similar decomposition appears in the case of ramified principal series. It is
conjectured that these decompositions give insight into the orbit method for p-adic groups, much in the same way that
happens in the case of $SL(2, k)$ (Received February 21, 2006)

1