1001-20-288   **Peter S Campbell*** (`pcamp945@science.uottawa.ca`), Department of Mathematics and
Statistics, University of Ottawa, 585 King Edward Ave., Ottawa, Ontario K1N 6N5, Canada. *On
the Steinberg representation of a p-adic group.* Preliminary report.

Let k be a non-archimedean local field with ring of integers $\mathfrak{o}$ and denote by $G = \mathbf{G}(k)$ the k-rational points of a Chevalley group $\mathbf{G}$ defined over $\mathfrak{o}$. The Steinberg, or special, representation of G is the irreducible admissible representation arising naturally from the action of G on the top cohomology space (with compact support) of the Bruhat-Tits building. We will examine the restriction of this representation to the maximal compact subgroup $K = \mathbf{G}(\mathfrak{o})$ of G. (Received August 29, 2004)