An Explicit Cell Decomposition of the Wonderful Compactification of a Semisimple Algebraic Group

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Abstract. We determine an explicit cell decomposition of the wonderful compactification of a semisimple algebraic group. To do this we first identify the $B \times B$-orbits using the generalized Bruhat decomposition of a reductive monoid. From there we show how each cell is made up from $B \times B$-orbits.