ERRATUM TO “RATIONAL SMOOTHNESS AND FIXED POINTS OF TORUS ACTIONS”

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As pointed out by T. A. Springer, the first assertion of the lemma in Section 3.2 is incorrect. This lemma concerns orbit closures of $B \times B^-$ in X , where B and B^- are opposite Borel subgroups of a connected reductive group G , and X is a regular $G \times G$ -equivariant completion of G .

Specifically, with the notation of the lemma, the closure of the $(B \times B^-)$ -orbit $(B \times B^-)(w, \tau)y$ in its $(G \times G)$ -orbit $(G \times G)y$ contains all orbits $(B \times B^-)(w', \tau')y$, where $w', \tau' \in W$ satisfy $w' \geq w$ and $\tau'w_{0,L} \geq \tau w_{0,L}$. But this closure may contain additional $(B \times B^-)$ -orbits as well, contrary to the first assertion of the lemma. The argument of proof actually shows that the closure

$$\overline{(B \times B^-)(w, \tau)y} \cap (G \times G)y$$

is the union of the $(B \times B^-)$ -invariant subsets

$$(B \times B^-)(w', \tau'w_{0,L})(B^- \times B)(1, w_{0,L})y$$

for all (w', τ') as above.

Since this lemma is only used (in the proof of Theorem 3.3) to construct certain $(B \times B^-)$ -orbits in the closure $\overline{Bw_0B^-} = \overline{B}w_0$, this error does not affect the other results of the paper.

Several combinatorial descriptions of all inclusion relations between $B \times B$ -orbit closures in X are to be found in Section 2 of the preprint “Intersection cohomology of $B \times B$ -orbit closures in group compactifications” by T. A. Springer, to appear in the *Journal of Algebra*. This preprint is available at the URL: <http://www.math.uu.nl/people/vdkallen>.