1057-05-356   **Saúl A. Blanco*** (`sabr@math.cornell.edu`), Department of Mathematics, Cornell University, Ithaca, NY 14853. *Descent set distribution of labelings on Bruhat paths.*

Consider a Coxeter system (W, S) and $u, v \in W$ with $u \leq v$ in Bruhat order. Denote the set of u-v paths in the Bruhat graph of $[u, v]$ by $B(u, v)$. One can label the maximum elements of $B(u, v)$ using Björner and Wachs's CL-labeling. Furthermore, all elements in $B(u, v)$, not necessarily maximum, can be labeled using Dyer's reflection order. We compare the distribution of descent sets of the CL-labeling and the reflection order for cases where the CL-labeling can be used for non-maximum paths. We also provide ways to describe the distribution of descent sets in some special cases using Billera and Brenti's complete **cd**-index. (Received January 25, 2010)