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Brant C. Jones* (brant@math.ucdavis.edu). *An explicit derivation of the Möbius function for Bruhat order.*

We give an explicit non-recursive complete matching for the Hasse diagram of the strong Bruhat order of any interval in any Coxeter group. This yields a new derivation of the Möbius function, recovering a classical result due to Verma. The matching is given in terms of combinatorial objects called masks that arise in Deodhar's formula for the Kazhdan–Lusztig polynomials. (Received September 18, 2009)