Enumerating Weyl Cones of Shi arrangements

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The enumeration of regions in a Shi arrangement have a rich history starting from Shi in 1986 which showed that the Shi arrangements of type A_n have $(n+1)^{(n-1)}$ regions. In order to refine this number, the Shi arrangement was split into Weyl cones where each cone is associated to an element in the associated Coxeter group. The dominant cone is the cone associated to the identity element and is counted by the Catalan numbers. Dorpalen-Barry and Stump recently showed that the other cones can be counted by the number of elements in the intersection of hyperplanes which intersect the cone. We continue this study by giving a formula to calculate the exact number of elements in each Weyl cone.