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(bsalisbury@ccny.cuny.edu). *A combinatorial description of the affine Gindikin-Karpelevich formula of type  $A_n^{(1)}$ .*

The classical Gindikin-Karpelevich formula appears in Langlands' calculation of the constant terms of Eisenstein series on reductive groups and in Macdonald's work on  $p$ -adic groups and affine Hecke algebras. The formula has been generalized in the work of Garland to the affine Kac-Moody case, and the affine case has been geometrically constructed in a recent paper of Braverman, Finkelberg, and Kazhdan. On the other hand, there have been efforts to write the formula as a sum over Kashiwara's crystal basis or Lusztig's canonical basis, initiated by Brubaker, Bump, and Friedberg. In this paper, we write the affine Gindikin-Karpelevich formula as a sum over the crystal of generalized Young walls when the underlying Kac-Moody algebra is of affine type  $A_n^{(1)}$ . The coefficients of the terms in the sum are determined explicitly by the combinatorial data from Young walls. (Received September 11, 2012)