984-14-185 **Karl-Dieter Crisman** (crisman@math.uchicago.edu), Dept. of Mathematics, University of Chicago, Chicago, IL 60637. *Chow groups on complements of arrangements; a first step.* Preliminary report.

A Chow group on a variety $X$ is defined by taking the quotient of the free group $Z^p(X)$ on all codimension $p$ subvarieties by an equivalence relation defined by divisors of functions. Bloch defined *higher* Chow groups by looking at codimension $p$ subvarieties of $X \times \Delta^\bullet$ (where $\Delta^\bullet$ is the standard simplicial complex) and taking the quotient by simplicial homotopy; Bloch and Esnault have recently defined a degenerate version as well. If $X = \mathrm{Spec}(k)$, $k$ a field, the groups of zero-cycles have actually been calculated; they are Milnor K-theory and absolute Kähler differentials, respectively.

Here we present a different characterization of these objects. To do so, we consider divisors of functions which behave particularly well at the hyperplanes defined by the simplices. Since each $\Delta^n$ (and its degeneration) may be viewed as an arrangement of hyperplanes, this definition may be extended to define Chow groups of 0-cycles on affine space relative to an arbitrary arrangement of hyperplanes.

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