

Meeting: 999, Nashville, Tennessee, SS 8A, Special Session on Algebraic Geometry and Commutative Algebra

999-14-72 **Robin Hartshorne***, Department of Mathematics, University of California, Berkeley, CA
947203840. *Gorenstein liaison of algebraic varieties*. Preliminary report.

The theory of liaison (linkage) of curves in projective 3-space has been a valuable and important tool in the study of curves, their Hilbert schemes, existence of special curves, and so on. This theory generalizes well to codimension 2 subschemes of any projective space.

For curves in higher dimensional spaces, or more generally subschemes of codimension greater than 2, the theory of complete intersection liaison is too rigid, and a better notion seems to be the notion of Gorenstein liaison.

In this talk I will review the basis of this recent theory, its initial successes, and the open problems that confront its further development. In particular I will discuss some progress on the question of the structure of an even Gorenstein liaison class. (Received August 07, 2004)