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Comparison of dualizing complexes.

Algebraic geometers tried to generalize the Poincare duality by Grothendieck to more general cases, for instance, general (not necessarily smooth) schemes over algebraically closed fields, finite fields, local fields, or Dedekind domains. There are certain complexes constructed (or proved) by M. Spiess (for arithmetic surface), T. Moser (for p -torsion sheaves over finite fields of char p), K. Sato (for p -torsion sheaves over Dedekind domains) and T. Geisser (Bloch's cycle complex, for general cases) that define (Verdier or Poincare) dualities of constructible sheaves, acting as a dualizing complex. In this talk I will show that Bloch's complex is quasi-isomorphic all the other three understand essential conditions. (Received May 11, 2011)