Call, Frederick W.

Torsion theoretic algebraic geometry. (English) Zbl 0714.13011

Queen's Papers in Pure and Applied Mathematics, 82. Kingston: Queen's University. vi, 118 p. (1989).

These notes develop the theory of torsion functors and half-centered torsion functors. They lead to very quick and pleasant applications to local cohomology, Picard group of rings etc. The notes are written very well and it is very pleasant reading. They are self-contained. The connections to basic aspects of sheaf theory in algebraic geometry are explained lucidly. Though there are no real new applications, the ones presented here are interesting and are arrived at effortlessly.

Reviewer: N.Mohan Kumar

MSC:

13D30	Torsion theory for commutative rings
14B15	Local cohomology and algebraic geometry
13D45	Local cohomology and commutative rings
14-01	Introductory exposition (textbooks, tutorial papers, etc.) pertaining to algebraic geometry
13-02	Research exposition (monographs, survey articles) pertaining to commutative algebra
18E40	Torsion theories, radicals

Keywords:

torsion functors; local cohomology; Picard group