

[Hoyois, Marc](#)

**From algebraic cobordism to motivic cohomology.** (English) Zbl 1382.14006  
*J. Reine Angew. Math.* 702, 173-226 (2015).

Summary: Let  $S$  be an essentially smooth scheme over a field of characteristic exponent  $c$ . We prove that there is a canonical equivalence of motivic spectra over  $S$

$$\mathrm{MGL}/(a_1, a_2, \dots)[1/c] \simeq H\mathbb{Z}[1/c]$$

where  $H\mathbb{Z}$  is the motivic cohomology spectrum,  $\mathrm{MGL}$  is the algebraic cobordism spectrum, and the elements  $a_n$  are generators of the Lazard ring. We discuss several applications including the computation of the slices of  $\mathbb{Z}[1/c]$ -local Landweber (see the work of *M. Spitzweck* [“Relations between slices and quotients of the algebraic cobordism spectrum”, *Homology Homotopy Appl.* 12, No. 2, 335–351 (2010; doi:10.4310/HHA.2010.v12.n2.a11)]; *J. K-Theory* 9, No. 1, 103–117 (2012; Zbl 1249.14008)] exact motivic spectra and the convergence of the associated slice spectral sequences.

**MSC:**

- 14F43** Other algebro-geometric (co)homologies (e.g., intersection, equivariant, Lawson, Deligne (co)homologies)
- 14F42** Motivic cohomology; motivic homotopy theory
- 55N22** Bordism and cobordism theories and formal group laws in algebraic topology
- 55U35** Abstract and axiomatic homotopy theory in algebraic topology

Cited in **2** Reviews  
Cited in **26** Documents

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