1988b Motivic cohomology and values of zeta functions

(Compos. math. 68 (1988), 59-102.).

At the time I wrote the paper there was no candidate for the complex $\mathbb{Z}(r)$ except for $r \leq 2$. Now there is a well-accepted definition for $\mathbb{Z}(r)$ — there is one definition based on Bloch higher Chow groups, and another due to Suslin and Voevodsky — the two are canonically quasi-isomorphic (Voevodsky 2002)[1].

Axioms (A2) and (A4) have been verified for $\mathbb{Z}(r)$ — see Geisser and Levine 2000 for the axiom $(\mathrm{A2})_p$ introduced in the paper (p68).

See the comments on 1986a.

The footnote p.86 reads:

> In the absence of a published proof that the cycle map into the integral group $H^{2r}(\bar{X}, \mathbb{Z}_p(r))$ factors through the Chow group...

This was correct, but as N Suwa wrote to me:

> ...a compatibility between the formula of Bloch-Quillan modulo p and the p-adic cycle map is shown in Ch. III.1 of my paper with M. Gros, Application d'Abel-Jacobi p-adique et cycles algébriques. Duke Math. J. 57 (1988), no. 2, 579–613. One might also see that the cycle map into the integral group $H^{2r}(X, \mathbb{Z}_p(r))$ factors through the Chow group even if the base field is not algebraically closed.

[1] Voevodsky, Vladimir, Motivic cohomology groups are isomorphic to higher Chow groups in any characteristic. Int. Math. Res. Not. 2002, no. 7, 351–355.