MANFRED KOLSTER, Department of Mathematics, McMaster University, Hamilton, Ontario L8S 4K1 Divisibility properties of special values of L-functions for quadratic characters

For a quadratic character $\chi$ over $\mathbb{Q}$ and an integer $n>0$ the values of the $L$-function of $\chi$ at $1-n$ are non-zero rational numbers if $\chi$ has parity $(-1)^{n}$. Most of the time the values are 2-integral, and in these cases one can prove general divisibility properties by powers of 2 . This has been done by Fox, Urbanowicz and K. S. Willia ms using sophisticated identities for generalized Bernouilli numbers. We will discuss a purely algebraic approach a la Gauss, which also allows to generalize the results to quadratic characters over arbitrary abelian fields.

