

Cohomology of orthogonal and symplectic groups over the integers

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Based on recent work connecting Grothendieck–Witt theory to L -theory and using Ranicki’s work, we explain how to compute the homotopy type of the Grothendieck–Witt spaces of the integers. This leads to a computation of the stable cohomology of arithmetic groups like $O(n, n, \mathbb{Z})$ and $\mathrm{Sp}(n, \mathbb{Z})$.