Algebras whose Tits form accepts a maximal omnipresent root

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Let k be an algebraically closed field and A be a finite-dimensional associative basic k-algebra of the form A=kQ/I where Q is a quiver without oriented cycles or double arrows and I is an admissible ideal of kQ. We consider roots of the Tits form q_A, in particular in case q_A is weakly non-negative. We prove that for any maximal omnipresent root v of q_A, there exists an indecomposable A-module X such that v is the dimension vector of X. Moreover, if A is strongly simply connected, the existence of a maximal omnipresent root of q_A implies that A is tame of tilted type.

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