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Simple Witt modules that are $U(\mathfrak{h})$ -free modules of finite rank

Let W_d be the Witt algebra, that is, the derivation Lie algebra of the Laurent polynomial algebra $A_d = C[x_1^{\pm 1}, x_2^{\pm 1}, \dots, x_d^{\pm 1}]$.
Let \mathfrak{h} be the Cartan subalgebra of W_d . We will determine simple W_d -modules that are $U(\mathfrak{h})$ -free modules of finite rank.