

Input: ODE



ODE Matrix K



H is row HNF of K and U is the corresponding Hermite Transform



r is the number of zero rows in H , A is the last r rows of U



V is the normal column HNF transform of A and W is inverse of V



V_n is the last $n-r$ columns of V and W_d is the $n-r$ last rows of W



$(y_1, y_2, \dots, y_{n-r})$ are the new parameters



Proposition 6.2 From Hubert and Labahn



Output: Reparameterized ODE, Dict from new to old variables

