

Cayley-Hamilton

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11:47 AM

$$\chi_A(t) = \det(tI - A) \in R[t]$$

$$M_n(R)[t] \cong M_n(R[t]) \cong M_n R[t]$$

$$B^* := \text{all minors of } B; \quad B^* B = (\det B) \cdot I$$

$$(tI - A)^* (tI - A) = \chi_A(t) \cdot I \quad \text{in } M_n R[t] \text{ \& \textit{even}}$$

"

$$\sum B_{ik} t^{ik}$$

in $C_A[t]$, where

$$C_A := \{B \in M_n : [A, B] = d_f\}$$

$$M_n R[t]$$

