Key Takeaways

Polynomial Equation in Matrix

A matrix polynomial equation is an equality between two matrix polynomials, which holds for specific matrices.

- If $f(x) = a_0x^n + a_1x^{n-1} + \cdots + a_n$, then

  $f(A) = a_0A^n + a_1A^{n-1} + \cdots + a_nI,$ where A is a square matrix.

- If $f(A) = O$, then A is called zero divisor of the polynomial.

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