Lecture – 10

#4 Subspace

- → Column Space $C(A)$ → in R^m
- → Null Space $N(A)$ → in R^n
- → Row Space $C(A^T)$ → in R^n
  - → All combination of rows
  - → All Combination of Column of A^T
- → Null Space of A^T $N(A^T)$ → in R^m

Left null Space of A

dimention of Row space = dimention of Column space = Rank of A

dimention of Null Space of A = n - Rank

dimention of Null Space of A^T = m - Rank

New Vector Space ! (M) → Matrix Space

↳ All 3×3 matrices !! {matrix follow all the rules of vector}

Subspace: → All upper △ matrix
→ All symmetric matrices.
→ diagonal matrix