

Template for English Book

Li Xiang

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Chapter 1

Linear Algebra

1.1 linear map

Theorem 1.1 (Rank-Nullity).

The dimension ^{*a*} of V is equal to ...

^{*a*}The dimension is ...

Proof. The rank¹

□

According to ...^[1]

¹The rank is ...

1.2 codes

Algorithm 1 PARTITION(A, p, r)

Input: $\mathbf{x}, \mathbf{y} \in \mathbb{R}^n$ **Output:** $\mathbf{z} = \mathbf{xy}^T \in \mathbb{R}^{n \times n}$

```
1:  $i = p$ 
2: for  $j = p$  to  $r$  do
3:   if  $A[j] \leq 0$  then
4:      $\text{swap}(A[i], A[j])$ 
5:      $i = i + 1$ 
6:   end if
7: end for
```

```
1  int main() {
2  printf("hello, world");
3  return 0;
4  }
```

Appendix A

Multilinear Algebra

Bibliography

[1] Zhang,