Geometric Algebra

23/9/2023

PREPARED BY KYLE CHUNG

Geometric Algebra

Geometric algebra is also known as Clifford algebra.

The geometric product of vectors \underline{a} and \underline{b} is defined as

$$\underline{a}\underline{b} = \underline{a} \cdot \underline{b} + \underline{a} \wedge \underline{b}$$

where

- $\underline{a} \cdot \underline{b}$ is the dot product of \underline{a} and \underline{b} ;
- $\underline{a} \wedge \underline{b}$ is the wedge product of \underline{a} and \underline{b} .

The geometric product is not commutative, since

$$\underline{b}\underline{a} = \underline{a} \cdot \underline{b} - \underline{a} \wedge \underline{b} \; .$$

23/9/202

© DDEDADED BY KYLE CHLIN

1