## 1 Definition

$$(|\psi\rangle, |\phi\rangle) \tag{1}$$

Where  $|\psi\rangle$  and  $|\phi\rangle$  are vectors in a Vector space.

## 2 Properties

Right linearity

$$(|\psi\rangle, |\phi\rangle) = (|\psi\rangle, \sum_{i} \lambda_{i} |\phi_{i}\rangle) = \sum_{i} \lambda_{i} (|\psi\rangle, |\phi_{i}\rangle)$$
 (2)