

**Source:**

## **1 | sum of a vector and a subspace def**

**1.1 | for  $v \in V$  and  $U \subset V$ ,  $v + U = \{v + u : u \in U\}$  (aka shift everything by  $v$ )**

## **2 | affine subset, parallel**

**2.1 | an affine subset of  $V$  is a subset of  $V$  that is "shifted" by a vector in  $V$**

**2.2 | all affine subsets from a subspace are said to be parallel to that subspace**