

**Nullspace:** The solution set to a homogeneous equation ( $Ax = 0$ ) is called the nullspace.

**Image:** The image is where a vector lands after it has been transformed. You would say image of  $v$  under multiplication by  $A$ .

**Eigenvector:** Vector that when transformed is a scalar multiple of itself.

**Eigenvalue:** Above mentioned scalar.

**Eigenspace:** The solution set to the equation  $(A - \lambda I)x = 0$ , is called the eigenspace of  $A$ , and can be multidimensional.

**Strictly dominant eigenvalue:** Means that its absolute value is larger than all other eigenvalues for the transformation. Strictly larger  $>$ , no  $\geq$ .