

## 1 AVK > 1

If the AVK is greater than one, it does not mean, it is getting more information from the measurement than when the AVK is 1, but the measurement loses influence again. This can be seen when reordering using the equation

$$\hat{x} = (I - A)x_a + Ax_T \quad (1)$$

where  $x_T$  is the true variable and  $\hat{x}$  is the derived estimation of the quantity  $x$ . Clearly, if the AVK  $A$  is the unity matrix,  $\hat{x}$  is solely determined by the measurement. However, if  $A$  is the scaled (scale > 1) unity matrix, the estimated result is only partially determined by the measurement. For getting a really large  $A$  it has only 50 % influence.