Filters $\sigma_{A=k}$:

- $l'_A = k$
- $u'_A = k$
- $d'_A = 1, if\ k \in d_A, 0\ otherwise$
- $f'_A = \frac{f_A}{d_A}, if\ k \in d_A, 0\ otherwise$

Statics for any other column C for the array that filter has been applied:

- $l'_C = l_C$
- $u'_C = u_C$
- $d'_C = d_C * (1 - (1 - (\frac{(f'_A)}{(f_A)})^{\frac{f_C}{d_C}}))$
- $f'_C = f'_A$

Filters $\sigma_{k1 \leqslant A \leqslant k2}$:

- $l'_A = k1$
- $u'_A = k2$
- $d'_A = \frac{(k_2 - k_1)}{(u_A - l_A)} * d_A$
- $f'_A = \frac{(k_2 - k_1)}{(u_A - l_A)} * f_A$

The above equations are applied if for k1, k2:

- $k_1 < l_A\ then\ k_1 = l_A$
- $k_2 > u_A\ then\ k_2 = u_A$

Statics for any other column C for the array that filter has been applied:

- $l'_C = l_C$
- $u'_C = u_C$
- $d'_C = d_C * (1 - (1 - (\frac{(f'_A)}{(f_A)})^{\frac{f_C}{d_C}}))$
- $f'_C = f'_A$

Filters $\sigma_{A=B}$:

If filters of the same array is applied (R.A = R.B):

- $l'_A = l'_B = max(l_A, l_B)$
- $u'_A = u'_B = min(u_A, u_B)$
- $f'_A = f'_B = \frac{f}{n}$
- $d'_A = d'_B = d_A * (1 - (1 - (\frac{(f'_A)}{(f_A)})^{\frac{f_A}{d_A}}))$

, where $n = u'_A - l'_A + 1$

Statics for any other column C for the array that filter has been applied:

- $l'_C = l_C$
- $u'_C = u_C$
- $d'_C = d_C * \left(1 - \left(1 - \left(\frac{(f'_A)}{(f_A)}\right)^{\frac{f_C}{d_C}}\right)\right)$
- $f'_C = f'_A$

Join of two different arrays:

- $l'_A = l'_B = l_A = l_B$
- $u'_A = u'_B = u_A = u_B$
- $f'_A = f'_B = \frac{(f_A * f_B)}{n}$
- $d'_A = d'_B = \frac{(d_A * d_B)}{n}$

, where $n = u_{A,B} - l_{A,B} + 1$

Statics for any other column C for the array that filter has been applied:

- $l'_C = l_C$
- $u'_C = u_C$
- $f'_C = f'_A$
- $d'_C = d_C * \left(1 - \left(1 - \left(\frac{(d'_A)}{(d_A)}\right)^{\frac{f_C}{d_C}}\right)\right) if\ C \in A$
- $d'_C = d_C * \left(1 - \left(1 - \left(\frac{(d'_B)}{(d_B)}\right)^{\frac{f_C}{d_C}}\right)\right) if\ C \in B$

Self Join:

- $l'_A = l_A$
- $u'_A = u_A$
- $d'_A = d_A$
- $f'_A = \frac{(f_A f_A)}{n}$

Statics for any other column C for the array that filter has been applied:

- $l'_C = l_C$
- $u'_C = u_C$
- $d'_C = d_C$
- $f'_C = f'_A$