- AS nuclear magnetic vector rotate on xy plane, they can interact and 'fan out' or dephase. This can lead to overall magnetisation of zero.
Rate constant for this process is labelled $R_2$ and associated transverse relaxation time constant is $T_2$, $T_2 = 1/R_2$.
- However, apparent spin-spin relaxation time constant can be affected by the operation of NMR machine itself, the apparent values are labelled $R_2^*$ and $T_2^*$.
- $T_2$ is very short in solids (approx. $10^{-4}$s) and in liquids $T_2$ approximately equals $T_1$. $T_2$ can never be greater than $T_1$.