The use of this procedure yields us to calculate the spatial and spectral gray level dependence for both $\theta$ and $(\theta + \pi)$.

Finally, the matrix $M_{V,V_\Delta}$ is obtained by keeping only the rows of $T$ with no repetitions, however, the number of repetitions for each row is represented in an array of occurrences called $I_{occu}$. At the end of the process, $I_{occu}$ is normalized with respect to the size of $M_{V,V_\Delta}$, so that each component represents the probability of occurrence of a given combination $(V,V_\Delta)$.

The spatial and spectral gray level dependence algorithm can be given as follows:

**STEP 1:** For a given distance $d$ and angle $\theta$, extract the two sub-tensors $A$ and $B$ from the tensor data $X$.

**STEP 2:** Compute the 3-mode flattening matrices $A_3$, $B_3$.

**STEP 3:** Build the matrix $T$.

**STEP 4:** Compute $M_{V,V_\Delta}$ by keeping only the rows $T$ with no repetitions.

**STEP 5:** Compute $I_{occu}$.