One of the basic streams of modern statistics physics is an effort to understand the frustration and chaos. The basic model to study these phenomena is the finite dimensional Edwards-Anderson Ising model. In discrete optimisation this corresponds to the minimal T-joins in a finite lattice with random weights of edges. This thesis studies a random join which is a random path between two given vertices. The original definition of the random join is very complex, and we have managed to find an equivalent one which is more natural. We use our definition to exactly compute the random join on circles. We also propose an algorithm which finds the shortest path in a large lattice with given weights of edges. This algorithm can be used for an experimental study of the random join.