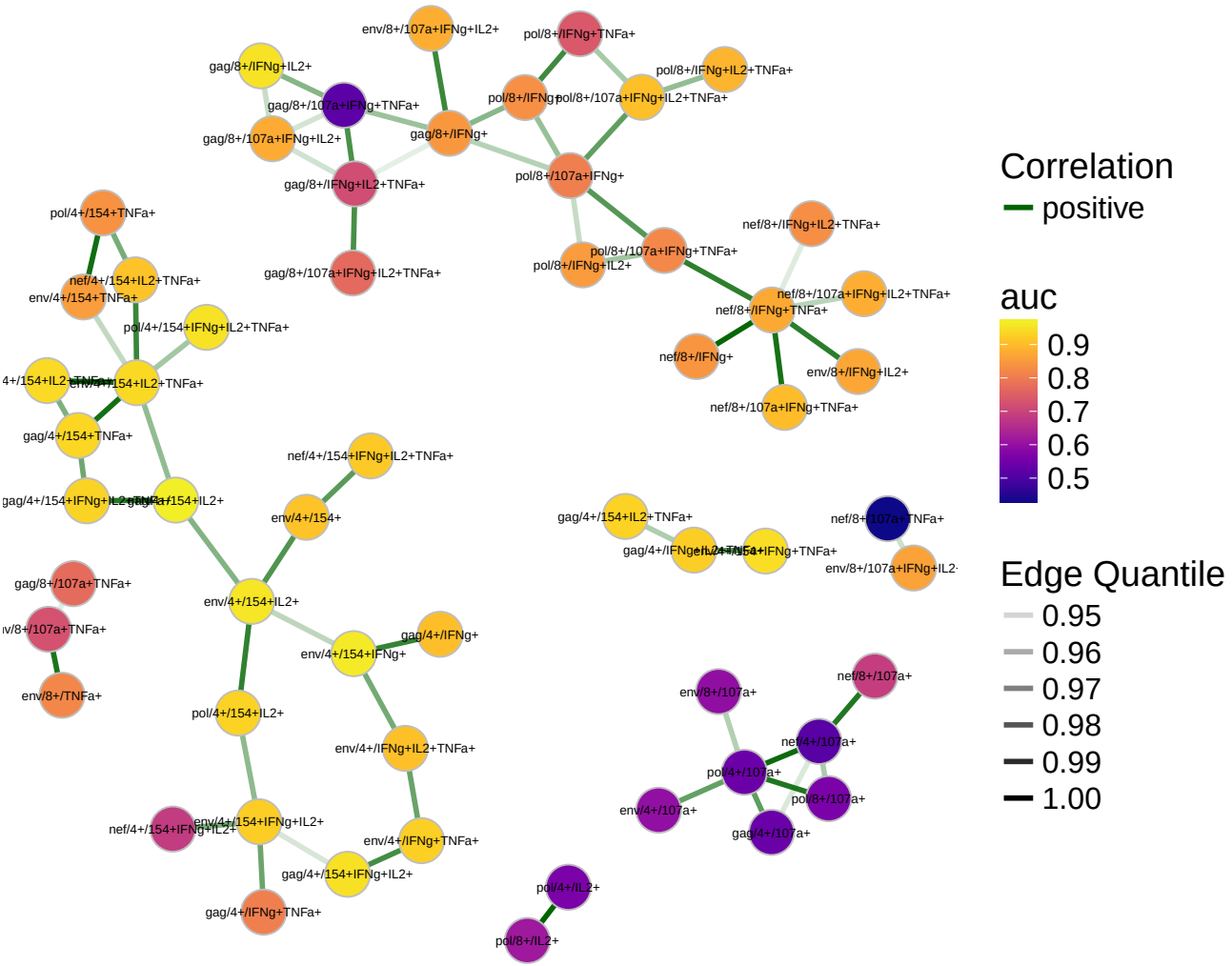Estimated Dependence Structure for Ising Model