Subsystem criticality & bifurcating entanglement renormalization

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Gapped fracton topological phases satisfy the definition of topological quantum order and yet exhibit unconventional properties including bifurcation under entanglement renormalization transformations. A direction of current interest concerns gapless phase transition points that are related to fracton topological phases. Motivated by this, I will describe a bifurcating entanglement renomalization group flow that is based on the critical (1+ 1) D Ising model. I will go on to show that this defines a tensor network state with some unusual correlation function behavior.