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Ivan Chio* (ichio@iu.edu), 402 N Blackford St, LD270, Indianapolis, IN 46202, and **Caleb He** (calebhe@college.harvard.edu), **Anthony Ji** (anthony.ji@yale.edu) and **Roland Roeder** (rroeder@iupui.edu), 402 N Blackford St, LD224Q, Indianapolis, IN 46202. *Lee-Yang zeros for the Cayley Tree and expanding maps of the circle.*

I will explain how to use detailed properties of expanding maps of the circle (Shub-Sullivan rigidity, Ledrappier-Young formula, large deviations principle,...) to study the limiting distribution of Lee-Yang zeros for the Ising Model on the Cayley Tree. No background in mathematical physics is expected of the audience. This is joint work with Caleb He, Anthony Ji, and Roland Roeder. (Received August 12, 2018)