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Louis-Pierre Arguin* (louis-pierre.arguin@baruch.cuny.edu). *The local extrema of the Riemann zeta function on the critical line.*

A recent conjecture of Fyodorov, Hiary & Keating states that the maxima of the modulus of the Riemann zeta function on an interval of the critical line behave similarly to the maxima of a simple spin glass system. In this talk, we will discuss recent progress on this conjecture. We will highlight the connections between the number theory problem and the probabilistic models including the branching random walk and the characteristic polynomial of random matrices. This is joint work with D. Belius (Zurich), P. Bourgade (NYU) and A. Harper (Cambridge). (Received September 13, 2016)