



**UNIVERSITÄT
BIELEFELD**



Faculty of Physics



Faculty of Mathematics

Colloquium Mathematical Physics

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Derridas generalized random energy model and the Riemann zeta function

The Derridas generalized random energy model on the binary tree is a by now well known class of toy models for spin glasses. The tree structure allows for a precise description of the extreme values. Moreover, a certain instance, the binary branching random walk, also turns out to show a similar behaviour as the for the Riemann zeta function on the critical axis (in a random interval of length one).

After explaining this interesting connection, I will present recent results (for a random model for the Riemann zeta function) on larger intervals in which the connection to Derridas generalized energy model still holds. The talk is based on joint work with L.-P. Arguin and G. Dubach.

**Friday, November 4, 2022, 16:15 hrs
D5-153**

