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Let \mathbf{Q}_p denote the field of p -adic rationals. We will consider the dynamics of a p -adic rational function $f(z) \in \mathbf{Q}_p(z)$ acting on the Berkovich space \mathbf{P}_{Ber}^1 , which is a p -adic analog of the Riemann sphere. Inspired by a question of Favre and Rivera-Letelier, we compute both the topological and the measure-theoretic entropy of this dynamical system for certain choices of f . Our computation makes use of Markov processes on countably many symbols.

No prior knowledge of p -adic numbers or Berkovich spaces will be assumed for this talk. (Received January 05, 2015)